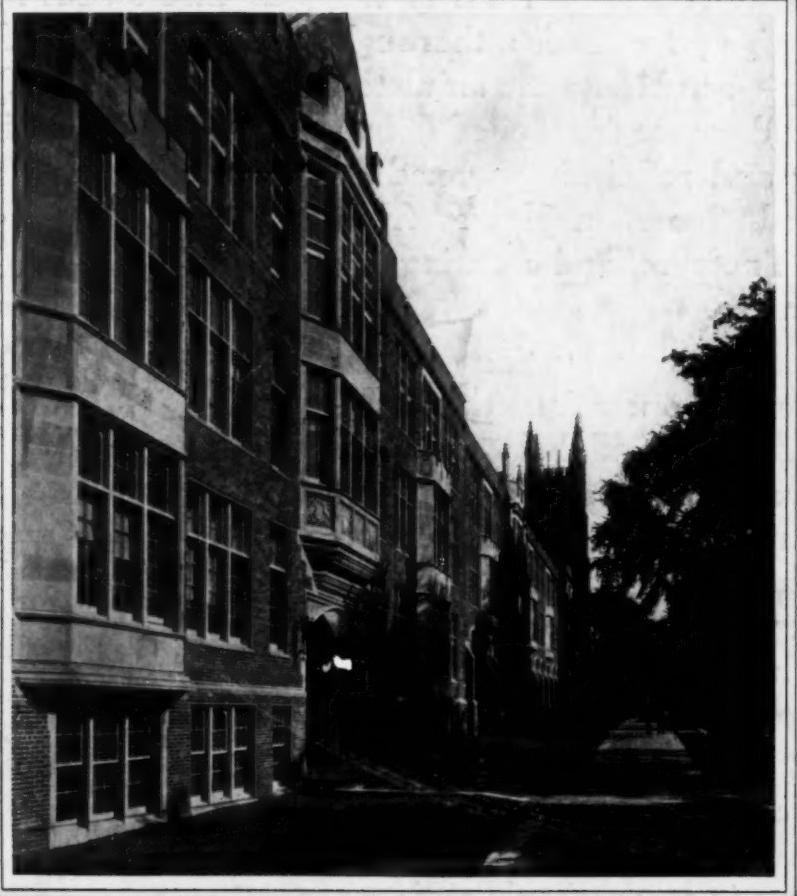


# The NATION'S SCHOOLS

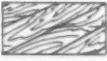
DEVOTED TO THE APPLICATION OF  
RESEARCH TO THE BUILDING, EQUIPMENT  
AND ADMINISTRATION OF SCHOOLS

JUNE

1928



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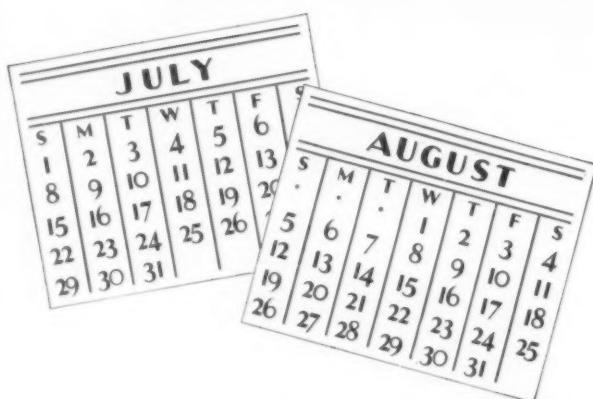
for floors of  
all kinds



for business  
for homes



# Get your FINNELL now for summer cleaning



**Begin next term with**

# CLEAN School Floors

VACATION time is renovation time in schools. Then is the time to give your floors a thorough cleaning—scrubbing accumulated grime and grease from oiled floors, sanding and refinishing waxed or varnished floors, applying fresh wax on linoleum, and scouring tile and terrazzo.

In every floor renovation or floor maintenance operation the FINNELL System will help you. It will save time, money, and labor. It will put the floors in better condition than ever—no matter what kind they are or their present condition. The FINNELL Electric Floor Machine waxes, polishes, scrubs, removes varnish and sands.

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"One of these scrubbing machines has been in service practically three years. The other two have just been installed in the past three or four months, and it was upon the recommendation of the man using the old one that we purchased the additional units, and this is to say that the same have been giving us entire satisfaction, doing the work much more satisfactorily and far more rapidly than the old style hand mopping and scrubbing."

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Houston, Texas.

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Requests from schools are now receiving prompt attention. If you wish to make this summer the beginning of a new era of cleanliness in your schools write us at once. Address FINNELL SYSTEM, INC., 366 East St., Elkhart, Ind. Also Standard Bank Bldg., Ottawa, Ontario, Canada. Factories, Elkhart, Ind., Hannibal, Mo., and Ottawa, Ont., Canada. District offices in principal cities.

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It Scrubs  
It Waxes*



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ELECTRIC FLOOR MACHINE

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*Truscon is an institution of national scope, the largest company of its kind in the world, manufacturing a complete line of steel products for permanent construction.*

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**STRUCTURAL STEEL** for every kind of building design incorporating the most modern methods.

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REFRIGERATION  
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MECHANICAL  
EQUIPMENT.

**Simpson & Adamson Company**  
SANITARY & HEATING ENGINEERS

TELEPHONE 196

MICHIGAN CITY, INDIANA

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Henry Weis Mfg. Co., Inc.,  
Elkhart, Indiana.

Gentlemen:

As the contractors who installed WEISTEEL compartments for rehabilitation work in five Michigan City school buildings, we are pleased to tell you our opinion of your product.

WEISTEEL was originally recommended to us as a quality product -- our experience has proved this.

The design of your product makes erection a simple matter. Our men erected the five jobs without any trouble and at a very low cost to us. The completed installations were thoroughly satisfactory to the school architect and officials, as well as ourselves.

We also want you to know our appreciation of the prompt service on details and production you gave us on each order.

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SIMPSON & ADAMSON.

*E. A. Simpson*

EAS:HCH

We maintain a corps of engineers to assist in planning the use of WEISTEEL for rehabilitation of any toilet room requirements, in either new or old buildings.

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**COMPARTMENTS**

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Shower  
Compartments

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# C O N T E N T S

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June, 1928

Number 6

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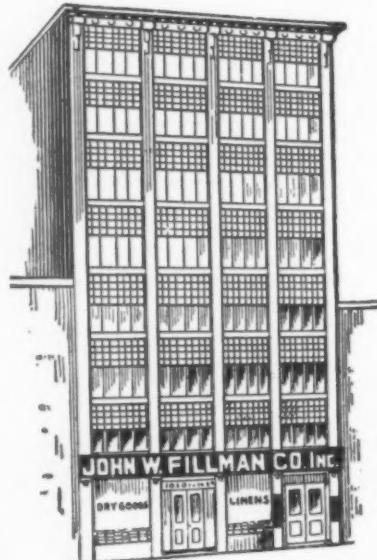
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**SURE!** And what's more it will probably be still warmer.

On these hot sultry days you want a cool refreshing shower or swim and that brings up the question of towels.

We are offering values at this time in big double thread constructed towels that are soft, strong, and absorbent that are unusual.

It will pay you to write for samples.

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## The "Factor of Safety" in Acid Lines



WILLIAM PENN CHARTER SCHOOL  
GERMANTOWN, PHILADELPHIA  
Zanzinger, Borie & Medary  
Architects

I. H. Francis  
Engineer

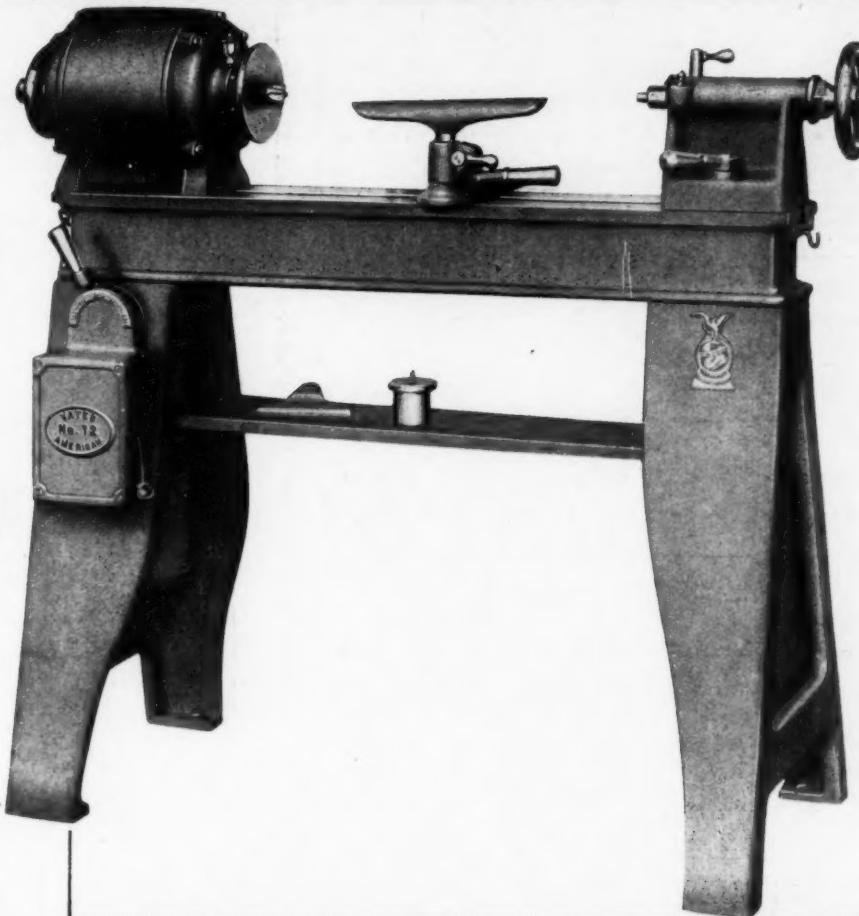
FOUNDED in 1689, "Penn Charter" is perhaps the oldest secondary school in America.

If this new school building lasts for an equal period (239 years), there is no doubt that the acid-proof Duriron drain lines that carry the corrosive wastes from the laboratory will be serving just as well as they are today.

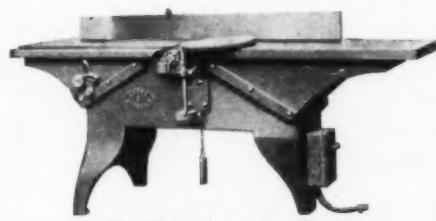
This is a "factor of safety" that should be considered, and explains why Duriron drain pipe can be *and is* guaranteed against corrosion.

*Duriron is produced only by*  
**The DURIIRON COMPANY**  
DAYTON·OHIO

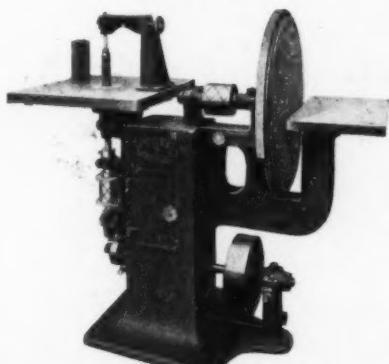
No. 12  
The BEST  
Speed  
Lathe  
For School  
Use!



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Universal Saw Bench



The Yates-American No. 1  
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The Yates-American No. 2  
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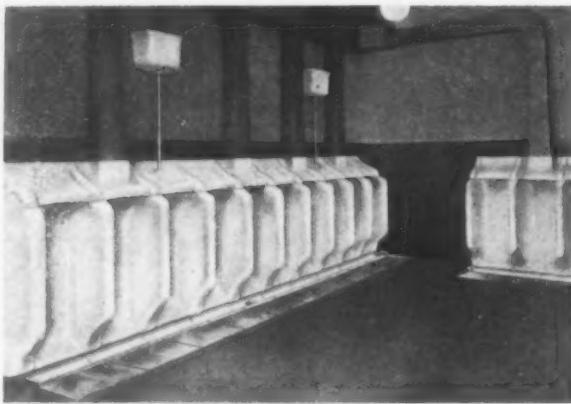
There Is No Question Here  
Of Superiority—Ask Your Boys!

ASK them whether they would rather operate real woodworking machines as exemplified in the Yates-American line (a few machines of which are shown here) or small, imitation tools. Their answer is obvious.

Boys can "grow up" to Yates-American school machines because they are man size, identically the same as those used industrially. They do not hinder his development as do those machines built to his size; which continually remind him of his youthful inexperience. And Yates-American machines are just as safe for the boy to work with, just as easily operated. Plan now on replacing inferior equipment with modern Yates-American machines and thereby give your students the benefits of a full woodworking experience.

*"Train Your Students Today on Machines they will Use Tomorrow"*

**Yates-American Machine Company**  
Educational Department      BELOIT, WIS.



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*—are safest  
—more durable*

"EBCO" ventilated urinals more than meet the sanitary demands of health boards. They cannot foul and are absolutely vermin proof. The "EBCO" ventilating feature is positive and immediate in its action of removing obnoxious odors, at the source. "EBCO" urinals are heavily vitreously enameled on all exposed surfaces; non-absorbent, won't crack or craze. Many styles of installations pictured and described in our new general catalog give a selection best suited to the need of your school. Whether your proposition is remodeling or a new building it will pay you to investigate the "EBCO."

**"VENTILATION  
INSURES  
SANITATION"**

**"EBCO"**  
also includes  
**STEEL  
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For Toilet Rooms

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"EBCO" has always been recognized as the hall mark of quality in Sanitary Fixtures. Every item bearing this trade mark is fully guaranteed to give the most satisfaction per dollar spent. "EBCO" Urinals, Enclosures, closets and drinking fountains are installed in a representative number of the leading schools and colleges. Don't invest until you investigate the full meaning of "EBCO."

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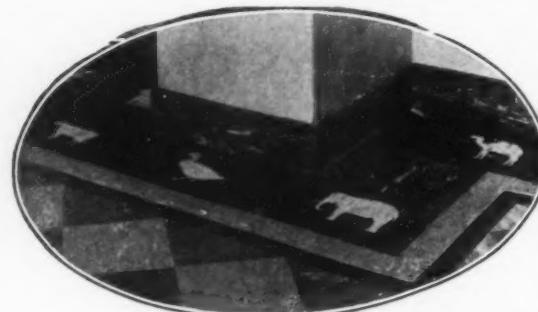


**Quiet--Comfortable--Durable**

**P**ERFECT quiet, so essential in the modern school library and class room is assured wherever Wright Rubber Tile floors are laid. This soft resilient flooring absorbs the impact of hurrying feet in a soothing manner.

Cured under terrific pressure, Wright Rubber Tile possesses many outstanding advantages. Without grain it cannot chip nor crack and is impervious to water and staining agents. It is easily cleaned, simple wiping with a damp cloth removes all dust and grime leaving a cleanly, sanitary surface like fine marble. Under any conditions it offers a sure footing and wears far longer than any other type of flooring used in school buildings.

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Dept. N.S. RACINE, WIS.

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But equally as important as concentration is the *quality of the soap solids* themselves. Liqua-San is made from the finest obtainable edible cocoanut oil and American potash. The laboratory method of manufacture assures that it will be perfectly balanced and neutral--never rancid or alkaline, never thin or watery. It will not chap the tenderest skin--it's sooth-ing as a lotion. Buy Liqua-San and be sure.



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INCORPORATED  
Huntington, Indiana

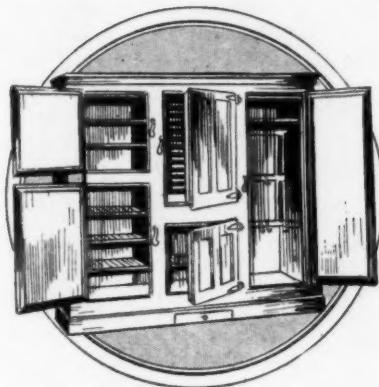
**MAIL THIS NOW!**

The Huntington Laboratories  
Huntington, Ind. \_\_\_\_\_ 19\_\_\_\_\_

Send samples of Liqua-San for testing and prices.  
We are interested in a soap of real quality at a reasonable price.

Name \_\_\_\_\_

Address \_\_\_\_\_



# Over 250,000 SATISFIED Users

*In many of America's largest institutions complete McCray equipments meet every refrigerator need. In the exacting service of the school McCray proves its outstanding quality.*

PIONEER in modern sanitary refrigerator construction, for 38 years McCray has held to an unyielding ideal of quality which is reflected in the remarkable service records of McCray installations.

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In single stock units and complete built-to-order installations for the largest institution, McCray quality is held to this single high standard.

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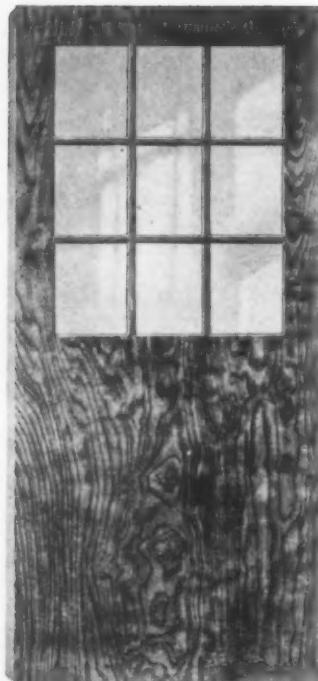
Send for latest catalogs and further information about refrigerators to meet your specific need. No obligation, of course.

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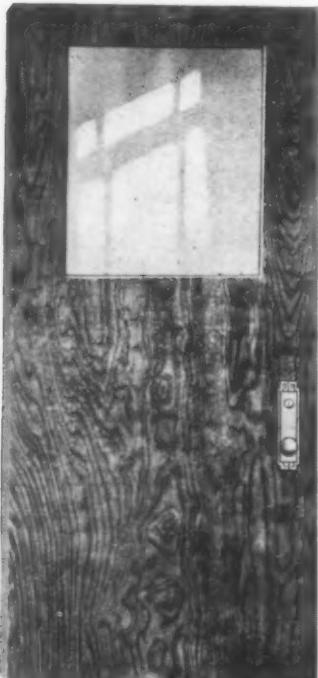
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SALESROOMS IN ALL PRINCIPAL CITIES *(See Telephone Directory)*

**MCCRAY REFRIGERATORS**

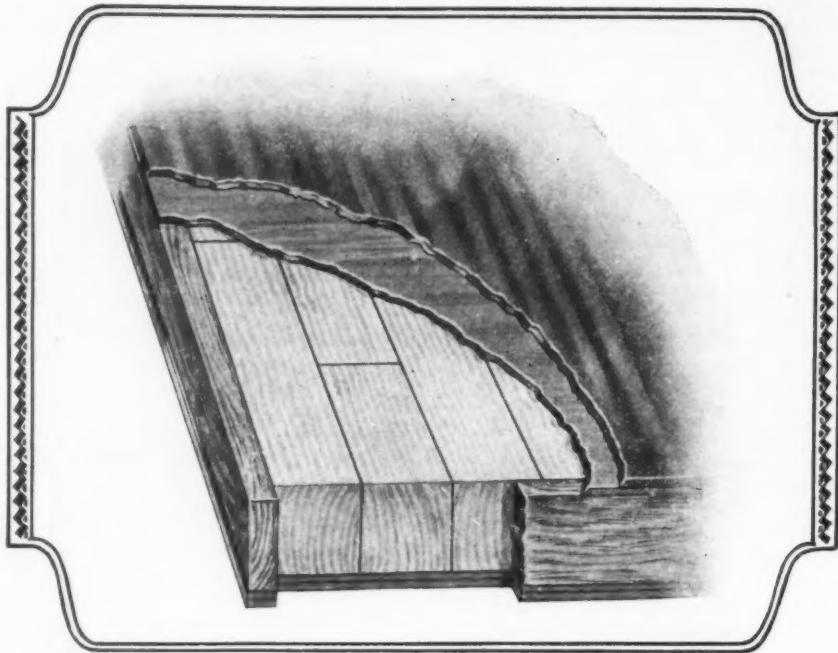


This nine light door is furnished in any surface veneer.



Another typical school door by Roddis. Numbers or letters may be inlaid when desired.

Truly sound-proof  
and fire-safe



## Preferred - for their sound-proof and fire-resistive properties ~ ~ ~ ~ ~

FOR more than a quarter of a century Roddis Doors have enjoyed the preference where fine doors are used.

The Roddis principle of solid construction the entire width and depth of the door has proved to give maximum resistance to the passage of noise and fire. No satisfactory substitute has ever been perfected for the soft wood core, built up of small strips glued together.

The core of Roddis Doors is made with almost the precision of cabinet work. Each joint is a planed fit. In the assembly a special glue is used—rocklike in its hardness and unaffected by moisture.

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**RODDIS LUMBER AND VENEER COMPANY**  
MARSHFIELD, WISCONSIN  
Branches in All Principal Cities

# RODDIS DOORS

Made by the

WORLD'S LARGEST PRODUCER OF FLUSH DOORS

## With the Publisher

**W**E WERE TALKING with several school superintendents recently regarding their plans for the summer months. So much has been said about sabbatical leaves for teachers that we wondered if the administrative heads of school systems were hard put to know what to do with their time in July and August. But we found out that there is a great misconception of the superintendent's job, much the same as there is regarding the employees of the big city banks. To the outsider the banker's hours, nine to three or sometimes two, have a great appeal, but these hours are usually found to be nearer eight-thirty to six than nine to three, with the bulk of the work coming after the doors of the bank are closed for the public.

Similarly the school administrator finds that the best time to do the most work is when the schoolhouse doors are closed, and with the big problems dormant for a few weeks he can devote his attention to those of buying new equipment, preparing for the fall buying of supplies, and generally putting his house in order for the coming year. This is what we have been told and if it is the general practice it is most certainly a sound one.

\* \* \*

*Formulating a policy and then sticking to it is one of the secrets of success, and success after all is so much easier than failure that it is surprising that every person and every enterprise are not successful. Failure very often comes to the man who will sacrifice principle and policy in order to gain his temporary point, whose vision is not sufficiently developed and who cannot see beyond his own immediate position.*

*To violate good ethics and thereby win an advantage is not only dishonest but*

poor business and we have often thought that in school the old adage, "honesty is the best policy," was never fully explained and it should have been, "honesty is the best policy because it is good business."

*Perhaps* there is no other enterprise where this is brought home so forcibly as in the publishing business. The newspaper or magazine must ceaselessly build its reputation not upon one effort or one issue, but with each succeeding issue as long as it remains in business. No sealer of weights and measures is necessary in the field of printing but short weight is quickly discovered by the subscriber who is the very life's blood to the publication.

*If you are honest with those whom you serve, if you give to them the best that is obtainable in the chosen field, the reader values the magazine and knows that it can be depended upon at all times. If you cheat, ever so very slightly, no one senses it so quickly as the subscriber and none turns away with distrust and disgust so abruptly. Honesty is not only the best policy but it is extremely vital toward success.*

\* \* \*

*Particularly* timely comes an article in this issue by Superintendent Edwin C. Broome of Philadelphia, who discusses the work of the committee on the curriculum. With the accomplishments of the past school year fresh in the minds of all superintendents, with the Minneapolis meeting a few weeks away, and with sufficient time during the summer to study the problems, this article is particularly commended. Dean Kelly discusses several pertinent points in an article on page 13, while Prof. Morrison, Prof. Thiel, Prof. Edmonson, Prof. Pittenger, and Superintendent Grigsby all have messages of more than usual significance.

The NATION'S SCHOOLS.



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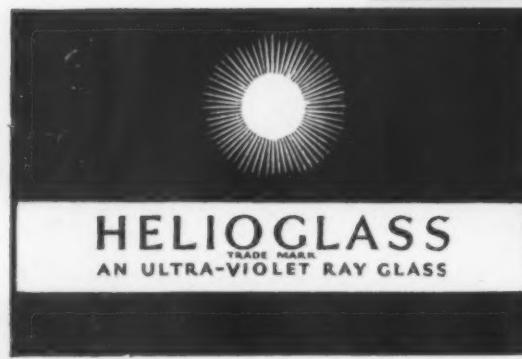
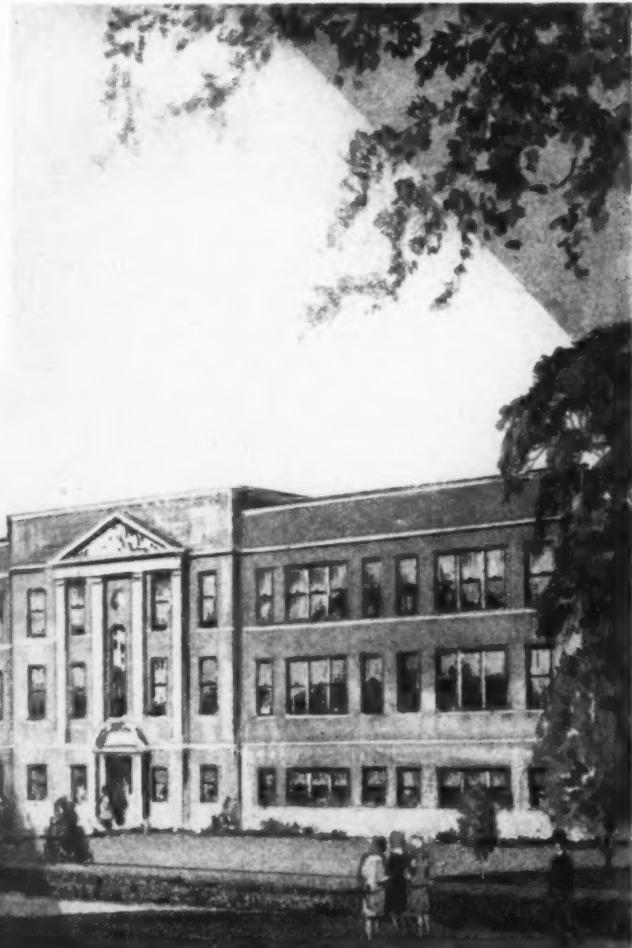
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# *The* NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO  
THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

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## Three College Problems

*Does the college neglect unity and continuity with lower schools, think in terms of subjects rather than students, and use artificial incentives to actuate student work?*

BY F. J. KELLY, PRESIDENT, THE UNIVERSITY OF IDAHO, FORMERLY DEAN OF ADMINISTRATION, THE UNIVERSITY OF MINNESOTA

INTELLIGENT criticism of college education is tending of late to focus upon three issues. It is the purpose of this paper briefly to discuss them.

1. It is charged that the college neglects the unity of purpose and continuity of materials that should exist between it and the lower schools.

A certain college, which is supported by the same municipality that supports four high schools, and which receives eighty per cent of its freshmen directly from these four high schools, requires for graduation among other things, a year of mathematics, a year of either ancient or modern history, and a year of American history. Some students who enter the college have had four units of mathematics, others have had but two. Those who have had four units have studied what is termed college algebra and trigonometry in the high school, and they find that the required mathematics, consisting of college algebra and trigonometry, repeats in essential respects the materials covered in the high school. Again, a student may have had a unit of ancient history in high school, and may choose ancient history as his choice in college, thus repeating his study of the ancient period and omitting in both high school and college all study of the modern European period. Again, he must take American history quite without regard to whether he had a course in American history in high school.

I have cited this concrete case as an illustration of what still prevails all too commonly in

college. The attitude still persists of regarding the college as an institution affording a new beginning in the student's education, whereas all the evidence—and there is an abundance of it now—shows that in both purpose and materials of instruction, there is no essential break between the senior high school and the first two years of college. Aside from the first two units of high-school mathematics and the elementary aspects of English composition and literature, there is almost nothing taught in high school that is not also taught in college. Practically all beginning languages, any period of history, American government, all beginning sciences, and many other subjects may be found in both high school and college. A pupil who pursues any one of them in high school, with the growing exception of foreign languages, is generally placed in the same class in college with other students who have not had a high-school course in the subject. For example, students take the same beginning chemistry in college whether they have had a high-school unit in chemistry or not. The course in American government in college is taken alike by those who have had the unit of American government in high school and those who have not.

Such practices in the college are not only wasteful of the students' time, but breed disrespect for both high school and college in the minds of the students. As long as colleges of arts use the group system of securing breadth of training, it should not prove difficult to dovetail the work of

the high school and college in such a way that in the two institutions together a breadth would be obtained by students far wider than now. For example, if an institution that requires a unit of history for entrance, and ten semester credits of history in college, were to make its requirements by a dovetailing of the two, so that each student should have contact with at least three periods, say ancient history, modern European history, and American history, then some justification of the requirements would be apparent. Such dovetailing would call for closer co-operation between the high-school teachers and college teachers, a condition devoutly to be wished.

#### *College Courses Need Reorganizing*

This criticism becomes more significant when one examines the general purposes for which these first-year college courses are commonly given. A beginning college course in chemistry, for example, does not have as its main object, rounding out the field of chemistry for the student who does not contemplate further study of chemistry, but is given rather from the point of view of the student who expects to go further with the study of chemistry. These courses do not look backward to something which the students are now to complete, but instead they look forward to something which the students are now to begin. Students who are not contemplating doing their major work in a given field frequently find the beginning course in that field quite unsatisfactory. Yet figures are available to show that only a minority of the students taking these so-called beginning courses do actually go forward with additional courses for which these are regarded essentially as preparation.

#### *High-School Work Is Repeated*

The criticism, therefore, that the college does not dovetail sufficiently with the high school, applies not only to the loss which is occasioned by duplicating work in college which is done in high school, but applies also to the fact that the college regards itself as a unit quite independent of the high school and sets up its beginning courses as preparation for its later work rather than fitting them into the unfinished work of the high school.

Another tendency in the college has added to the difficulty. With the rapid expansion of materials in nearly all the fields of college study, we have a highly departmentalized organization unknown to colleges a few decades ago. We now have separate departments of Botany, Zoology, Bacteriology, Physiology, Entomology, and Anatomy, covering the field which not so many years

ago was covered in the single department of Biology. Similarly, we have departments of Sociology, Economics, Political Science, Geography, and Anthropology—off-shoots in the main from the one-time department of History.

It is very difficult to secure a synthesis of materials from beginning courses in these related fields such as is required for any real comprehension of the problems involved. It is rare, for example, that a problem can be fairly comprehended in the light of the study of economics alone, for nearly all economic problems ramify out into the field of sociology and geography and many of them cannot be understood without a study of political science as well. It seems necessary, therefore, to develop as the culmination of the period of general study which continues without essential change of purpose, through high school and at least the first two years of college, courses which cross over these artificial departmental lines and introduce each problem of study from the standpoint of all its implications in these various related fields.

#### *Junior-College Development*

As a mode of meeting the general criticisms involved in the paragraphs above, there has been developed in this country in recent years a new type of institution known as the junior college. Its growth in the last dozen years has been truly phenomenal, and there are to-day considerably more than 300 such institutions in operation in this country. Standing, as it does, between the high school below and the senior college above, the junior college is experiencing difficulty establishing its essential purposes. On the one side, it is undertaking to complete the general education of those students who do not intend to go further with their education. On the other side, it is undertaking to prepare students for the specialization years of college and for the professional schools, as do the first two years of the liberal arts college.

Just how best to serve both these purposes is not yet satisfactorily worked out in most junior colleges. Where the junior college is established as a part of the public-school system, being essentially an extension of the high-school curriculum, its function as a finishing institution is emphasized. Where, however, the junior college is a part of the college organization, its preparatory function is emphasized. It seems clear, however, that as the junior-college movement spreads, a better dovetailing with the senior high school is being accomplished, and that students are more and more planning their general cultural education with the combined high-school and

junior-college years in mind. Orientation courses for synthesizing the information from many related departments are growing rapidly and these will come more and more to determine the character of the junior-college curriculum. Preparation for the senior college and professional schools is not so much a matter of particular information as it is of capacity for independent study. A genuine intellectual interest developed in the high school and junior college is the most priceless outcome of this period. Courses that lend themselves best to the achievement of this purpose will serve both the finishing function and the preparatory function of the junior college.

#### *The Second Charge*

2. It is charged in the second place that college faculties think in terms of subjects rather than in terms of students.

This criticism can be understood in part from the nature of training that faculty members receive and from the bases used to determine their promotion. The graduate schools are essentially training schools for college teachers. The chief characteristic of the graduate school is intensive specialization and training in research. I would not disparage the value of research nor adequate training for it. I would, however, point out that such training has a tendency to concentrate the teacher's interest upon his subject and its development, whereas the college teacher, especially the college teacher of those subjects having as their main function the development of intellectuality and other aspects of personality, rather than the development of specialized training and technical skill, is in most urgent need of a keen interest in the students in his classes. What the interests of students are, how they learn, what procedures lead to the development of their essential intellectual strengths—these are questions which for the teacher are quite as important as is the information he must use as a means of stimulating this student interest and development.

#### *Graduate School Has Two Functions*

It is coming to be recognized that the graduate school has two functions, one quite as important as the other. The one is to push forward the boundaries of knowledge and the other to train college teachers. This latter function is probably not being best accomplished because it has been assumed in the past that training in research was the best means of developing scholars and scholars were *ipso facto* the best teachers. On the other hand, it is being recognized here and there that a curriculum having greater breadth

and dominated by the point of view of teacher training rather than research, is proper for a graduate school.

Probably not much headway will be made in this change of viewpoint with reference to college teaching, so long as faculty promotions depend, as at present, almost entirely upon research output and recognition by national organizations having as their purpose the encouragement of research. An institution believing in the value of effective teaching must find a way to discover it and recognize it. Certain procedures, such as conferences by faculty groups under the leadership of some recognized teacher, are being used to stimulate an interest in teaching on the part of members of the faculties. Alumni are being asked to indicate who in their minds are the best teachers. The more advanced students are being called into conference on the same subject. In short, a considerable movement is under way to bring about better recognition of superior teaching ability in the colleges, but its progress is still slow.

#### *Influence of Examination System*

Another aspect of this criticism is the form of the examinations used quite generally throughout both high school and college. From these examinations students cannot avoid the impression that the essential outcome of the courses is information memorized in detail. There is little incentive for students to seek out important relationships and the more subtle significances of the information involved in the courses because these things are rarely called for in the examinations. Our whole practice of examining at the end of each quarter or each semester, granting credit for the work thus far done, and so entering into a contract with the student that we shall never call upon him for that material again, has a serious influence upon the attitude of the student towards the real outcome of his education.

In his mind, education comes to mean the accumulation of these bits of information without any regard to the relationships that must exist among the various courses constituting his curriculum. He cannot view his education in terms of his own development, because to him it appears that education consists of the completion of so many of these more or less independent and unrelated units of subject-matter.

In an attempt to meet this criticism there is being developed in the colleges various phases of student personnel work. This movement has its roots in the intelligence examinations that have revealed such wide-spread differences of native ability among students. They have, likewise, re-

vealed fairly close correlation between the native ability and measures of performance in college courses. Native ability can be little influenced by college study and therefore it is important for faculty people to know beforehand what the native abilities of their students really are.

Beyond native ability, however, a great deal can be gained by careful study of interests, aptitudes, and abilities of students as understood by previous teachers, by parents and friends of students, and by physicians who have examined them. All of this information will give to college teachers a basis of judging the best procedure to use in connection with each student, and when the teacher becomes interested in developing each student to his highest possible achievement. For this purpose, continuous record cards indicating not only the student's achievement in his subjects from year to year, throughout high school and college, but setting forth likewise his activities in other fields than his subjects and whatever significant experiences he has had which shed light upon his character, his interests, and his aptitudes, are being advocated more and more throughout the country.

At present the state of Pennsylvania, with the co-operation of the Carnegie Foundation for the Advancement of Teaching, is engaged in an enterprise involving, during the next decade, the keeping of continuous records of each student from the beginning of the seventh grade through his college course. This is a most significant experiment. From such studies we may presently have the data with which we can suggest adaptations of both curricula and methods to meet the individual differences of students, and turn the interests of college teachers more to student development.

#### *Artificial Incentives Actuate Work*

3. Probably the most significant charge against the colleges to-day is that they use artificial incentives to actuate student work and therefore make it practically impossible to develop genuine intellectual interests among the students.

Judging from the more or less slavish dependence of students upon day to day instructions and requirements, without which they seem unwilling or unable to do consistent studying, and considering also the too common tendency of college students to be dishonest in their examinations, it must be conceded that there has been a discouraging failure so far to enlist the genuine interests of students in their own education. It seems that the proportion of students who are in college to educate themselves and who seek the assistance

of the faculty and the libraries and laboratories in their enterprise is relatively small. Instead, their attitude seems still to be in general, "Here I am, Mr. Professor, now you educate me!" They go to classes, not with the idea of using the class time to have the teacher aid them in what they have been unable to achieve in their study, but rather to conceal from the teacher anything they do not know. In other words, their attitude is one of trying to keep the teacher believing that they know all that is expected of them, rather than having the teacher help them. In short, the whole spirit of the students is too much that of simply "getting by."

#### *"Getting By" a Common Practice*

This situation, of course, is not true alone of the colleges. It is true perhaps quite as much of the high schools and the grade schools. The incentive is marks, credits, honor points, and the like, from the time the child enters school until he gets his bachelor's degree. In fact it still too often prevails as an incentive until he gets his Ph.D. degree or his M.D. degree. So long as the attention of both students and teachers is concentrated upon such incentives, it is inevitable that the students should view the outcome of education as that of satisfying the teacher who is the giver of these marks, credits, and the like. It is difficult for him to concentrate his attention upon his own development and until he does, it is scarcely conceivable that his best efforts can be enlisted in this enterprise of his own education.

Just how disintegrating this practice is to the character of students, and hence to society, is difficult to say. There are those, and they are among the thoughtful students of the question too, who believe that much of the character difficulty of this generation as it shows up in politics, in dishonest business practices, in lawlessness, and in the general disregard of the higher values of life, may be traced in part to this use of unworthy incentives throughout the public schools and colleges. There is no reason to believe that high motives may not actuate young people exactly as effectively as high motives can actuate adults. Probably, too, it will be conceded by most of us that practice in making decisions on the basis of high motives in youth is the best training for making decisions on the basis of high motives in adult life. The question, therefore, of proper incentives is not alone a question of how to get college courses most satisfactorily completed, but is a fundamental question in the development of character.

On this account a most important development of recent years is the adoption in certain colleges

of one or another phase of the independent study plan. In one college it may be permission for a few students of unusually high attainment to carry out a program independent of the ordinary college curriculum and pass an examination upon that program at the end of the period of study. In another college it may be a considerable fraction of the students whose programs are planned upon this independent study basis, and who go to classes or not, according to whether attendance at these classes seems to be the most useful way of preparing for the comprehensive examinations at the close of the period of study. In another college it may be the plan for all the students above the junior-college level.

#### *Comprehensive, Related Examinations*

Whatever the practice, the purpose is to develop on the part of the students concerned a capacity to handle their own education with the aid of the teachers, tutors, libraries, and laboratories. Their success is determined, not by their ability to pass examinations in each of the unit courses making up the curriculum, but by a comprehensive examination depending essentially upon the students' understanding of the relationships among these various subjects and upon their capacity to use the information gleaned from all the fields in arriving at decisions on questions that their study might reasonably be expected to have answered.

This constitutes a new approach to college education, so far as American colleges are concerned, although it has been practiced in older universities for centuries. It is hoped that such an independent study plan may bring about recognition on the part of both students and faculty of what the most significant outcome of college education is, and may help to re-establish a keener respect for genuine intellectual activity than now prevails either in college or in the public mind.

Incidentally, it should do much to bring about a change in the high school also, because the teachers now teaching in the high school are trained for the most part in the colleges, and teachers trained under an independent study plan should go out to their high-school positions with a feeling that such an outcome in high school inssofar as it is adaptable to the high-school pupil's age, is far more significant than the satisfactory completion of so many high-school units with the pupil's attention centered upon "getting by" with the teachers.

These three charges, and the answers colleges are beginning to make to them, constitute the battleground of college reorganization of the present day.

## A Study of Poor Equipment Handicaps

The effectiveness of the work of a high school with respect to its organization and instruction is in a large measure determined by the building, grounds, and equipment. Inadequate building and ground facilities and poor arrangement are important factors in hindering the principal and teachers in accomplishing their work, according to E. N. Ferriss, in Bureau of Education *Bulletin No. 10*.

For fifty-four schools recently visited the range as to the cost of the school plant was from \$15,000 to \$300,000. The approximate median value was \$50,000. As to construction, thirty-five of the buildings were of brick and wood; eight of brick, steel, and concrete; and eleven were of wood. Thirteen were heated by stoves, twenty-eight by steam, and thirteen by hot air. Thirty-seven of the fifty-four schools had indoor toilets and seventeen out-door toilets, eight of which were in bad condition. The median cost of the township high-school buildings of Illinois is \$40,100 and of the community high-school buildings \$20,300. In both cases, the figure given is in terms of cost and not in terms of present value.

#### *Auditorium Combined With Other Rooms*

Thirty-three schools had an auditorium or auditorium and study hall combined, six had an auditorium and community room combined, four had an auditorium and gymnasium combined, seven had a community room, and four had no auditorium facilities. Six schools, in addition to the four previously mentioned, had an indoor gymnasium and forty-two had no gymnasium. Of the fifty-four schools, forty-five had one or more science laboratories, thirteen had a manual training room or rooms, thirteen a room or rooms for agriculture, twenty-one a room or rooms for home economics, and five a room or rooms for commercial work. Forty-two schools had a principal's office, seventeen a teachers' room, and four a nurses' room. Twenty-nine schools had a separate room for the library. In twenty-six schools no current magazines or newspapers were in the library.

The size of the school grounds ranged from one acre to a school farm of two hundred and forty acres, the median being approximately four acres. Twenty-two of the schools had a football gridiron, thirty-one a baseball diamond, thirty-two basket ball courts, thirteen a track, and eleven had tennis courts. In a considerable number of instances these athletic fields were not on the school grounds.

# The Commission on the Curriculum Reviews Its Work

*The chairman points out the history of the development of the curriculum and the successive problems encountered in its recently concluded undertaking*

BY EDWIN C. BROOME, SUPERINTENDENT OF SCHOOLS, PHILADELPHIA

AT NO preceding period in the history of our schools has so much attention been given to the subject of the curriculum as during the past decade. In fact, before 1880, or even 1890, the curriculum was not a serious problem in American education. Examine the programs of conventions held prior to that time and you will find that the two major interests, as expressed by the topics on the programs, were the theory of education and methods of instruction and discipline. We find the early programs featuring topics in educational psychology, in child study, the doctrine of formal discipline, the doctrine of interest, the doctrine of self-activity, and the method of correlation.

Educational books published at the time are a fair index of the interests of school men. The following titles will be familiar to most of the readers of this article: Baldwin's *Elementary Psychology and Education* (1887); Quick's *Educational Reformers* (1890); Lang's *Apperception* (1893); Herbart's *Science of Education* (English translation, 1896); Baldwin's *School Management and School Methods* (1896); Rosenkranz's *Philosophy of Education* (1896); Hinsdale's *Teaching the Language Arts* (1896); and Harris' *Psychologic Foundations of Education* (1898). Of a list of forty-three volumes published between 1887 and 1897, not one deals with the curriculum.

## *First Attempt at Revision*

The first serious attempt by any nationally representative committee to revise the curriculum was that of the Committee of Ten in 1894. This committee confined its efforts to the high-school field and produced a series of parallel courses that became the standard for most of the high schools of the country for two decades. Soon after the publication of the report of the Committee of Ten, Dr. Harris' book, *The Psychologic Foundations of Education*, appeared with the extraordinary statement that the function of education was to keep open "the five windows of the

soul" through the study of mathematics, geography, literature, grammar, and history.

This was the philosophy of the curriculum of the day expressed by its leading exponents. Instead of presenting a new point of view, this was merely establishing a philosophical sanction for a practice that had been universal for a hundred years. It expressed the conviction that the subjects of the curriculum for the child of 1898 should be those that their grandfathers had studied, with a special emphasis on geography, mathematics, grammar, literature, and history, as these opened the "five windows of the soul" more effectually than any other subjects. The essence of the Harris philosophy was that the child should be introduced during the educative process to the accumulated knowledge of the past.

## *Dewey's "School and Society"*

The year after Dr. Harris' book was published another book appeared on the market—small, unpretentious, and little read at first. It was Dewey's *School and Society*. In this little book Dewey expressed the thought that the function of the school was to adjust the child to life as it is and that in the life of the present must be found the vital material for the curriculum.

The idea expressed in this little book, and subsequently in numerous writings of Dr. Dewey's, has revolutionized modern educational thought and practice. As Dewey's influence began to be felt throughout the country, schoolmasters began to ransack the universe of life and society to find vital material for the curriculum, so that the school might adequately adjust the child to active life; and they found it in abundance—in the industries, in the home, in business, on the farm, in the woods, among the mountains, in the city streets, in the fields of literature, of art, and of music, hitherto untouched. Textbooks were rewritten containing the new material. The process of revision and enrichment once begun, there was nothing to limit it save the capacity of the pupil;

and we have not always been mindful of that. While we added new material to the curriculum we retained much of the old. The handing-down and passing-on tradition of the schoolmasters was too strong to be overcome. Again, we were not sure that we were yet on the right track. Schoolmasters never are sure of that. Moreover, we knew the old school and had mastered its practices. We had been trained in it and had been taught in normal school and college to teach its curriculum.

#### *Cutting Out the Dead Wood*

A few wise leaders suggested that we should be more selective; that we should cut out the dead wood. Frank McMurry showed us how to reduce the material of arithmetic fifty per cent, and make a better subject of it at that. Stanley Hall said that geography, instead of a science, was becoming a sausage, into which we put everything. Valuable contributions were made by members of such organizations as the Society for the Scientific Study of Education in their yearbooks on minimum essentials and the correlation of subjects. We made some progress in the elimination of old material, especially in the fields of arithmetic and grammar, but every other subject became so expanded and enriched that the total result was not materially affected.

In addition to the general acceptance of the broader, social function of the school, as suggested by Dewey, other factors have influenced the expansion and enrichment of the curriculum. The first of these has been the tremendous expansion of knowledge during the last quarter of a century, resulting from new discoveries and inventions, and especially from the development of science and its application to new fields of human endeavor. Electricity alone has developed a dozen new arts and a hundred new industries. Second, improved facilities for travel and increased means of communication have knitted all parts of the world closer together and have brought within the ken of everybody knowledge formerly shared by the few.

Third, a more liberal conception of citizenship has caused us to stress interests and attitudes as well as knowledge; for example, what once was called the study of civics, incidentally treated in connection with the study of history, has taken on the aspect of social science and been termed "citizenship." Other subjects of the curriculum, once treated briefly and formally, have been expanded to become major factors of the curriculum. Physiology has become a treatment of the whole subject of physiology, personal and community hygiene. Manual training, once an inci-

dental branch treated briefly in the last grade, has become industrial art, and permeates the whole curriculum. Freehand drawing, treated as an extra a quarter of a century ago, has become the study of fine arts, and commands a generous share of attention. The study of music now comprises, in addition to the singing of songs, the study of music composition, music ensemble, both vocal and instrumental, and music appreciation.

Fourth, numerous organized interests have discovered that the public school is the most successful agent for propaganda of all sorts and have influenced well-meaning, but often misguided, legislatures to enact laws providing for the introduction of special features into the curriculum of the public schools. A recent survey of the expansion of the curriculum from this fourth source shows the following partial list of subjects that have been added in this way with the number of states that have adopted such enactments:

Subjects	States
Morals and manners .....	19
Scientific temperance .....	33
Fire prevention .....	10
Humane treatment of animals .....	17
Thrift .....	8
Accident prevention .....	5
Bird study .....	4
Prevention of tuberculosis .....	4

In one state alone such extra features, introduced into the curriculum by the legislature, require one hundred hours a year, or twenty school days of time.

#### *Central Problem of Administration*

As a result of conditions that have been described, the curriculum, which thirty years ago was a subject of so little concern that it was scarcely considered in the programs of educational conventions, and in all the output of pedagogical writers had not at that time appeared as the subject of a single volume, has to-day become the central problem in school administration.

In 1923, at the Cleveland Convention of the Department of Superintendence of the National Education Association, an entire session was devoted to the subject of the elementary-school curriculum. Five distinguished speakers read papers: Charles H. Judd, Otis W. Caldwell, Ernest Horn, Amalia M. Bengston, and William McAndrew. The audience was large and the interest was great. I am sure that all of us who listened to those estimable papers felt in our own minds about as Mark Twain did about the weather, that we had talked about the subject so long it was time we did something about it.

I offered a resolution on the floor of the convention to the effect that a commission be created "for the purpose of bringing together the elements for the construction of a suitable curriculum for the boys and girls of American public schools." The motion was unanimously adopted, and the Department of Superintendence authorized its president and executive committee to create a commission for the purpose outlined in the resolution. A committee on the 1924 Yearbook had already been appointed, with Superintendent Jones, of Cleveland, as chairman. This committee was instructed to feature the curriculum or some phase of it in their report for the Yearbook.

#### *Commission Members Appointed*

At the 1924 meeting the Commission on the Curriculum was formally appointed, its membership to be as follows:

Edwin C. Broome, Superintendent of Schools, Philadelphia, *Chairman*.

John L. Alger, President, Rhode Island College of Education, Providence, R. I.

Frank W. Ballou, Superintendent of Schools, Washington, D. C.

Mrs. Susan M. Dorsey, Superintendent of Schools, Los Angeles.

John M. Foote, Rural School Supervisor, State Department of Education, Baton Rouge, La.

Charles H. Judd, Director, School of Education, University of Chicago.

Harold O. Rugg, Lincoln School, Teachers College, Columbia University.

Zenos E. Scott, Superintendent of Schools, Springfield, Mass.

Frank E. Spaulding, Dean, School of Education, Yale University.

Paul C. Stetson, Superintendent of Schools, Dayton, Ohio.

A. L. Threlkeld, Assistant Superintendent of Schools, Denver, Colo.

H. B. Wilson, Superintendent of Schools, Berkeley, Calif.

John W. Withers, Dean, New York University.

The commission went to work at once, through correspondence conducted by the central office in Washington, and held its first meeting at Washington, July 3, 1924. Superintendent Jones' committee had prepared the Yearbook for that year, and in its report brought to the attention of superintendents of schools throughout the country the need of curriculum revision, how this need could best be met, and made a review of curriculum practices as a basis for the future work of the Commission on the Curriculum. The Research Division of the National Education Association was also busily employed in making a survey of present practices, and a nation-wide search for material.

The first meeting of the Commission on the

Curriculum was devoted mostly to a discussion of plans and procedure. It was promptly decided that it would be both unwise and unprofitable for any central body, however carefully selected to represent various sections of the country, to prepare a definite curriculum in detail to become the All-American curriculum for the public schools of the country. We decided that for the first year the greatest need was to make a collection and summary of outstanding research studies on the curriculum. Twelve subcommittees, covering all the elementary subjects, were appointed to collect and summarize all available published and unpublished studies. These committees received nationwide co-operation from universities, colleges, and state and district school systems.

The commission's first report appeared in the Third Yearbook of the Department of Superintendence, under the title "Research in Constructing the Elementary-School Curriculum." It seems unnecessary to describe more particularly the contents of that Yearbook, as every member of the Department of Superintendence received a copy, and 11,000 additional copies were sold to others who were interested.

#### *The Plan of Co-operative Study*

At a meeting in the fall of 1925 the commission decided that the next desirable step would be to secure the co-operation of superintendents and others interested in curriculum revision throughout the country. One of the members of the commission, Superintendent Zenos E. Scott, of Springfield, Mass., during the session at which the 1925 Yearbook was presented, offered a plan for a co-operative study of the curriculum, and suggested ways and means whereby such a co-operative plan could be put into operation. The result was very gratifying. Over three hundred school systems, with their superintendents, besides a number of state departments of education, universities, and normal schools, agreed to participate in the co-operative plan.

This suggested the title for the 1926 Yearbook; namely, "The Nation at Work on the Public-School Curriculum." Quoting from the introduction to the Fifth Yearbook, "The co-operative plan is an attempt to formulate a practical way by which important contributions in curriculum revision and enrichment may be made available to school systems throughout the country. The plan attempts to foster research and professional co-operation. It aims to stimulate local interest and endeavor in the important work of curriculum revision."

The material supplied by the co-operating school districts and institutions was especially

useful in the preparation of the 1926 Yearbook. The 1926 Yearbook was received even more favorably than that of 1925. Twelve thousand copies were sold in addition to those distributed to members of the Department of Superintendence. It would seem hardly necessary, therefore, to discuss in detail its contents. In general, the 1926 Yearbook brought together some of the best of the material resulting from the co-operative plan, including the statement of certain fundamental considerations. The committees for this Yearbook had been so arranged that the chairman of each would be a practical school administrator and that there would be on each committee one person who had achieved a reputation as a research worker or specialist in the field assigned to the work of the particular committee.

The plans for the 1927 Yearbook included a continuance of the co-operative plan which had been so successful the preceding year. In fact, we have followed that plan to the end. We also introduced an innovation for 1927 in the way of having the chairmen of the subcommittees act as members of the commission, so that they would be present at the meetings of the commission and would keep in closer touch with our policies. This plan worked very well, and was continued in 1928.

#### *Consider Junior High-School Curriculum*

For 1927 the commission directed its attention to the junior high-school curriculum. The fact that by that time there were nearly three thousand junior high-school organizations in the country indicated that this new form of organization should be recognized as a distinct unit of the public-school system. We also thought that we might help the infant junior high schools to develop into self-respecting and distinctive elements in the school system instead of perpetuating the traditional practices of the elementary school on the one hand or the high school on the other. We found that where committees on the course of study in junior high schools were in operation in different cities they had been organized on the subject basis; hence it was agreed that we should follow this plan and select eleven subject committees whose chairmen should be, insofar as possible, practical school administrators.

We had not proceeded far in the preparation of the report on the junior high school before we were confronted with the fact that another task lay just ahead which we were not equipped to perform. We realized that, if the Commission on the Curriculum was to attack the subject on the basis of school units; namely, elementary, junior high, and senior high, there should be some group

at work co-ordinating the three divisions of the school system to bring about better articulation than there is at present. We, therefore, recommended to the Executive Committee of the Department of Superintendence the appointment of another commission or committee whose purpose it should be to work out a plan of better articulation of the several divisions of the school system. Such a committee was promptly established with Superintendent Weet, of Rochester, as chairman.

#### *Seven Major Problems*

In planning the report on the junior high school it soon became evident to us that certain major problems fundamental to an attack on the curriculum should be discussed. After a thorough consideration of the subject we decided upon seven major problems as deserving special study and presentation, as follows:

- I. The American Program of Education.
- II. Extent and Growth of the Junior High-School Movement.
- III. Shall the Junior High School Be Freed from the Responsibility of Direct Preparation for College?
- IV. Articulating Junior High School and Senior High School.
- V. The Junior High-School Teacher.
- VI. Junior High-School Costs.
- VII. A Justification of the Junior High School.

The first sixty-eight pages of the report were, therefore, devoted to a discussion of these problems, and the remainder of the report to the reports of the subject-matter committees.

Notwithstanding the fact that the junior high school has not become universally accepted as a unit of the public-school system, the reception of the Fifth Yearbook was quite as cordial as that of the preceding book. About 12,000 copies were sold in addition to the copies that were sent to members of the Department of Superintendence.

#### *Present the Sixth Yearbook*

The Sixth Yearbook, "The Development of the High-School Curriculum," the final report of the Commission on the Curriculum, was presented at the Boston meeting of the Department of Superintendence in February, 1928. In the preparation of this Yearbook we continued the co-operative plan, the plan of subcommittees, and also that of having the chairmen of the several committees members of the commission. For the report on the senior high school we decided to depart from the general plan of the Fourth and Fifth Yearbooks and instead of subject-matter

committees we decided to have committees for the study of problems relating to the organization of a suitable curriculum for the senior high school, together with committees to report on research in the several senior high-school subjects. Two chapters, "The Needs of American Adolescent Youth" and "The Objectives of Secondary Education," will indicate the sort of problems which were studied and presented by the committees on the major problems of the senior high school.

Committees were also formed to report on and to evaluate research studies in the following subjects: English, social studies, mathematics, science, modern foreign languages, Latin, music, art, home economics, industrial subjects, and commercial studies. There was also a report from a Committee on Health and Physical Education in Junior and Senior High Schools. The combination was due to the fact that this committee, owing to the illness of its chairman, was unable to make its report on the junior high school the preceding year.

#### *Four Objects to Be Accomplished*

While the members of the Commission on the Curriculum will probably never know to what extent their work shall have influenced educational practice throughout the country, we have kept in mind the accomplishment of four major objects:

1. To help establish scientific methods of curriculum revision in local school systems.
2. Through the Co-operative Plan of Curriculum Revision to make the achievements of one community a benefit to all.
3. To put the results of scientific research on the curriculum into practicable and useful form to make them available to superintendents throughout the country through the Research Bulletins and the Yearbooks of the Department.
4. To stimulate and encourage school systems to evaluate their present courses of study and to organize committees for improving them.

#### *Commission Reports Total 1756 Pages*

Our reports, presented in Yearbooks Three to Six, inclusive, have comprised 1756 pages. By the time the reprintings of the Sixth Yearbook have been completed approximately 60,000 volumes of these four reports will be in the hands of educators throughout the country. This is the most extensive and sustained educational study that has ever been made by a committee of the National Education Association.

It may be interesting to the readers of this article to know that the original membership of

the commission remained intact throughout the four years, and that the last meeting of the commission was the best attended and the most enthusiastic of all the meetings. In making the final report of the commission the chairman expressed the hope that some provision would be made for continuing the offer of assistance and service to the school people throughout the country in the revision of their local curricula. The Research Division of the National Education Association, after these years of experience, together with its wide acquaintance with educators throughout the United States, is probably the best equipped group of experts in the country to render such assistance.

#### *Problems Still Remaining*

As the curriculum is an ever-living subject in a progressive school system, we recognize the fact that there remain many unsolved problems, and that some of these will continue to call for the attention of trained and experienced experts. We already recognize the following among these problems:

1. New material in relation to old material in the curriculum.
2. Reorganization of the curriculum in response to changing ideals.
3. Encouragement of local research on the curriculum, and the collection and publication of significant research studies.
4. The place of the classroom teacher in the construction and interpretation of the curriculum.
5. Integration of curriculum material in the life of the child in order to give the child intelligent and sympathetic contact with the problems of a changing civilization.
6. Criteria to determine what pupils should take certain subjects.
7. The integration of social studies.
8. The curriculum in relation to the teaching load, to the use of textbooks and other instructional material, and the length and frequency of class periods in relation to the several subjects of the curriculum.

This is the same as acknowledging that the work of the Commission on the Curriculum has not been completed; and it never could be completed should the commission remain in operation continuously. In laying down our work we believe that the major problems have been considered, and we modestly hope that some good will result.

We might add with some significance that with the completion of the Sixth Yearbook we have come to the end of our financial resources.

# Incorporating Unusual Features in a Modern School

*Pupils in Jackson High School are stimulated in their desire for knowledge by surroundings that lend atmosphere to the subjects they study*

BY FRANK CHILDS, ARCHITECT, CHICAGO

THE beginning of the school system of Jackson, Mich., dates back to 1831. In 1897 the two school districts lying west and east of Grand River were united by legislature enactment. Immediately thereafter the eleventh and twelfth grades of the east district were transferred to the west high school. On the completion of a high-school building in the west district, the ninth and tenth grades from the east school were also transferred.

Prior to March, 1908, the west school was con-

ducted on the upper floors of the West Central building, afterwards known as the W. L. Seaton School, and replaced later by the West Intermediate School.

At the time the school contained grades nine to twelve and had eighteen teachers. On the completion of the intermediate schools in 1918, the ninth grade was removed and the enrollment reduced to 541, which was about the normal capacity of the high-school building. The enrollment doubled within the next five years and the



*The atmosphere in the literature room, Britten Hall, is conducive to good results.*



*Medieval Statues* and shields of various universities embellish the upper portion of this decorative fireplace, which is one of the outstanding features of the library of the Jackson High School.

need of a new building became more apparent.

The site of the present high-school building and recreation field, containing fourteen and one-half acres, was acquired in 1924, at a cost of \$215,000; improvement of the site involved a further expenditure of \$50,000; the building itself cost \$1,145,000; equipment, \$150,000; the development of Withington Field and Stadium, \$100,000; making a total for the entire plant of \$1,660,000. The building was opened to the school

The present building provides for an enrollment of 2,000 pupils, with the possibility of an extension to the west and north of a junior college, and additional high-school classrooms for 1,000 more pupils.

The curriculum is designed to meet the requirements of a complete, modern high-school course, whether it be of the vocational type—Jackson is fast becoming a thriving industrial center—or whether it be of the college preparatory type for



*The Forum is equipped to serve as a school or public polling place, having permanent voting booths.*

children in September, 1927, and dedicated in November of that year.

In view of the nature of the locality, the architects urged an informal type of structure on the order of the old colleges at Oxford and Cambridge in preference to the universal type of school building existing in this country. An unusual and charming facade has been obtained that fits admirably into the character of the location.

A pleasing tower, eighty feet in height, marks the main entrance to the auditorium at the juncture of the two main wings. Over the main portal of the entrance is the following inscription by Charles Evans Hughes:

"Faith without credulity; conviction without bigotry; charity without condescension; courage without pugnacity; self-respect without vanity; humility without obsequiousness; love of humanity without sentimentality; and meekness with power."

the various professions, or of the noncollege preparatory type for those who wish to enter the business world.

Adequate exits have been provided for each section of the building, especial care being taken that audiences in the auditorium or spectators at games in the gymnasium might have easy entrance and egress without having to enter the building proper. The facilities having to do with the community, such as the gymnasium and auditorium, are so located that they may be utilized by community or school organizations without the necessity of using the entire school building.

Among the features of the high school that are most unusual are Britten Hall, the classical room, and the Forum. Britten Hall, which was largely planned by Caroline Britten, instructor in English literature, was modeled after old English halls, because, in the hall of his "thane" or king,



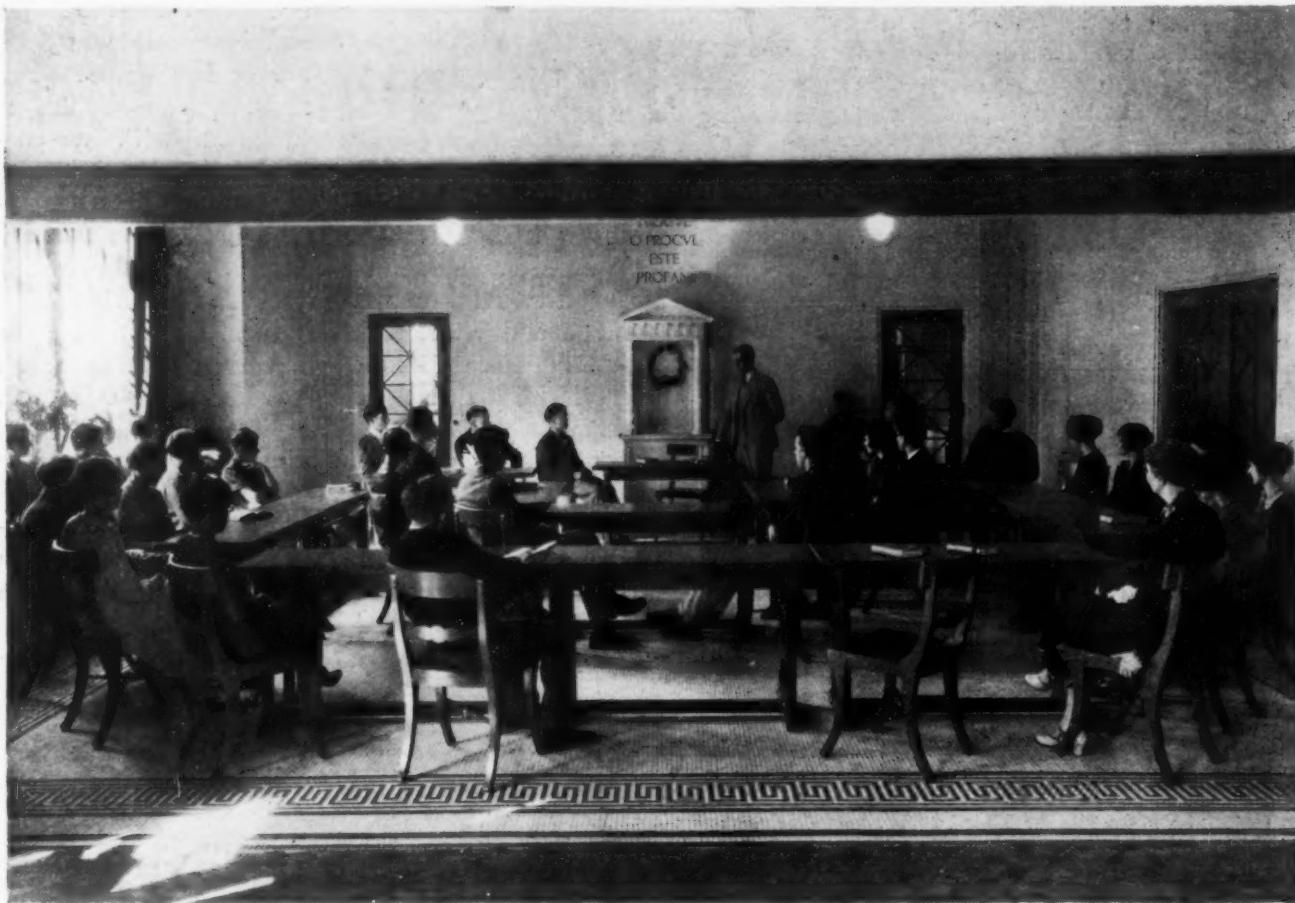
An unusual feature is the print shop (above) which adjoins the journalism room. The chemistry laboratory (below) is well equipped to care for twenty-four pupils.



the minstrel sang his hero tales that are the beginnings of our literature. Since literature thrives in an atmosphere of beauty, one in which the surroundings enhance the pleasure and knowledge to be gained from the study of this subject, Britten Hall was so planned and furnished.

The leaded glass windows, the arched doorways, the raised dais, the wrought iron chandeliers—all are contributing factors in aiding the pupils to live the stories and plays that they

school is to make not merely good men and women but good citizens for the nation. Going a step further, from the standpoint of citizenship every schoolhouse ought to be used for a polling place, the reason for this being the ideal for which the ballot box stands. Hence the Forum is equipped with permanent voting booths for public and school use, and, with platform and chairs, accommodates discussion groups of approximately one hundred. Daily classes in civics,



*Appropriate mottoes feature the walls of the classical room, which embodies various Roman elements of design.*

study. Furniture for this hall has been provided through the proceeds of plays given by the pupils and it has been chosen to further the atmosphere of the hall. The beamed ceiling is quite high, allowing a balcony along an end and side for the use of small audiences. In the classical room Greek, Latin, and Pompeian elements of design are embodied. Mosaic flooring, characteristic of classical antiquity, has been used, while the walls are in panel formation similar to the atrium of a Roman home in which an altar, dedicated to the household gods, was always placed. The Pompeian furniture and the wood-work have an ancient bronze finish.

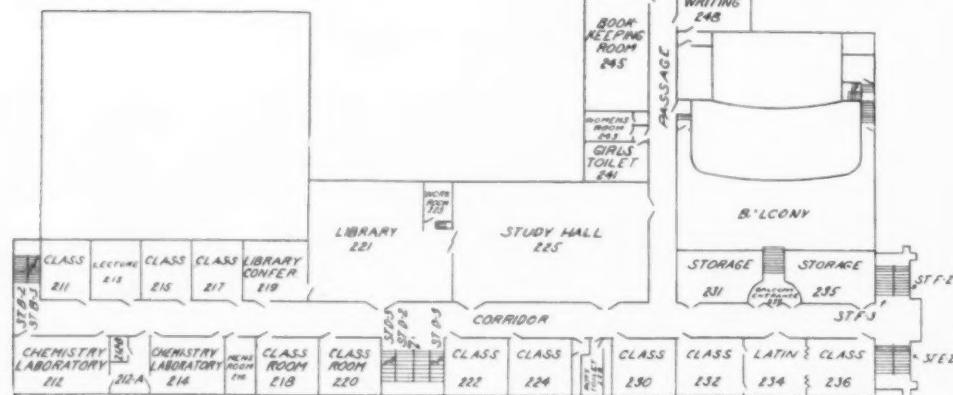
The Forum was included in the school on the premise that the primary function of the public

public speaking, and dramatics are held here.

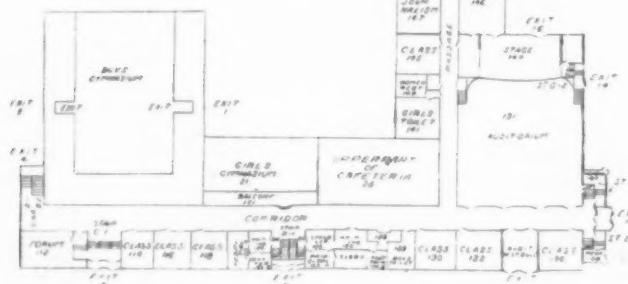
The above features are outstanding but by no means conclude the interesting developments of the school. The auditorium has a seating capacity of eighteen hundred and eight, making it the largest auditorium in Jackson. The acoustical properties are such that words whispered on the stage are distinctly audible at the rear doors under the balcony or at the topmost seat of the balcony that reaches to the third floor level, having entrances at both second and third floors.

There is an elaborate ornamental plaster ceiling of the pendant and tracery type, as seen in one of the rooms in Audley End, Essex, England, which was built in 1615. The color scheme of the entire room is a restful brown, relieved by

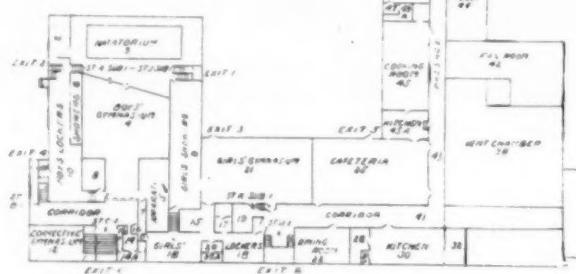
*Second floor plan, which emphasizes the easy access to the library, study hall, and auditorium balcony.*



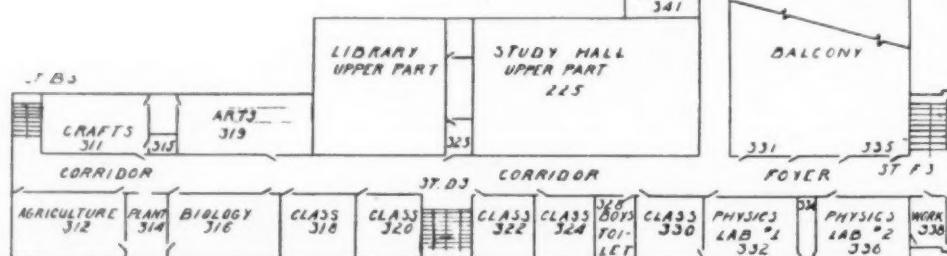
*First floor plan, which shows the close correlation of the various units.*



*Ground floor plan,  
which shows the shops,  
cafeteria, and gym-  
nasium.*



*Third floor plan, which shows the connected laboratory units at each end of the main corridor.*



figures of red and green. The window hangings and stage curtains are of green velour with old gold fringe.

located on an inclined floor. Space is provided for fifty additional chairs. The addition of a piano and victrola makes the room suitable for small musical groups, while drop-arm desks on each seat makes the room available for classes in theory of music and music literature.

The remainder of the wing in which the music room is located is devoted to the wood working shop, mechanical drawing department, and facilities for journalism, which include a journalism room, a publication room, and the print shop.

The course in mechanical drawing is co-ordinated with all of the shop work so that a pupil who has com-

pleted this course should be well fitted to fill a position as draftsman in the mechanical industries. The department is completely equipped for thirty-six pupils, each having individual drawers in the filing racks along the walls, while a separate room is provided for blueprints.

In the journalism department the pupils are given practical training in the mechanics of writ-

facilities for physical exercise are so isolated that they may be used during the afternoon or evening for interscholastic contests without disrupting the activities in other parts of the building. The boys' gymnasium, the smaller girls' gymnasium, and a corrective gymnasium for the purpose of correcting physical defects are among the facilities provided for health training.

The boys' gymnasium, sixty by 100 feet, and



*The library has facilities for one hundred pupils and 10,000 books may be placed in the built-in wall cases.*

ing, editing, proof reading, and make-up, while the print shop offers a field that is new to the curriculum of high schools. The latter room is equipped with six double dust-proof case stands, seats and desks for pupils and instructor, cork display boards, supply cabinets, a separate stock room, printing presses, and extra cases and composing materials for the pupils.

The high-school publication, *The Reflector*, which is a four-page newspaper, is written, composed, and printed in the journalism department.

Physical training is required of every boy and girl who passes the physical examination. Located in an individual wing of the building the

accommodating 2,000 spectators in the stadium seats on the main floor and balcony, is amply equipped with apparatus and has 900 lockers and thirty showers in adjacent rooms, while the swimming pool is located on the ground floor below the gymnasium. The pool, twenty-five by seventy-five feet, is lined with ceramic mosaic tile and is equipped with modern devices for keeping the water clean and hygienic. The room has nonslip tile floor, terrazzo base and wainscot, brick walls, and concrete ceiling that is equipped with acoustic felt. Bleachers along an end and side of the pool provide a seating capacity of approximately five hundred spectators.

Double steam tables, approached from each of the two main corridors on the ground floor, feature the cafeteria arrangement, making it possible to serve twice the usual number of pupils in a given time. The dining room is used by both the pupils who use the cafeteria service and those who bring their luncheon from home. It is furnished with thirty-seven long tables, seating approximately three hundred pupils, and when not in use as a dining room is used as a study hall.

#### *Cooking Room Adjacent to Cafeteria Kitchen*

Adjacent to the cafeteria kitchen is located the cooking room where the girls in the home economics courses may learn to prepare and serve meals, to classify and select foods, and to investigate their cost for individuals or for a family. In the main room are work tables, burners, and ovens, while one end is devoted to unit kitchens and a large pantry.

The remainder of the main wing on the ground floor is devoted to the sewing room, the general shop, and the machine, battery, and auto shops.

Centrally located on the second floor are the library and the study hall, both rooms being two stories in height. The library is equipped with built-in cases that provide space for more than 10,000 books and has large tables seating approximately one hundred pupils. Features of the library are the conference room and the ornamented fireplace. The study hall, which is connected to the library, provides desk facilities for more than two hundred pupils.

The larger wing on this floor is devoted to commercial subjects, rooms being provided for typewriting, stenography, and bookkeeping.

#### *Double Chemistry and Physics Laboratories*

Both chemistry and physics are provided with two laboratories, each of the four rooms accommodating twenty-four pupils. Lecture rooms that may be used for motion pictures are located between each pair of laboratories. The physics laboratories have tables equipped with low voltage current and gas for experiments and light-proof curtains are provided to facilitate experiments in light.

In the chemistry laboratories hot and cold water, mushroom ventilators, gas, and vacuum are provided for each six-pupil table, while the demonstration desk is provided with hot and cold water, gas, vacuum, ventilation, alternating and direct currents, and a glass demonstration tank. A dark room is provided for use in connection with photographic experiments.

In rooms adjoining the growing room or conservatory are the agricultural and biology lab-

oratories. The former is well equipped for the teaching of agriculture and its allied branches, field husbandry, horticulture, soils, agricultural economics, farm mechanics, and animal husbandry. An experimental plot of land is located on the school grounds in addition to a tool shed and root cellar.

The administrative offices are centrally located at the main entrance on the first floor. Space is provided for the counsellor, the assistant principal, and the principal, as well as a record room and a recording clerk. Across from the administrative offices the medical department is located, which is provided with a waiting room, a doctor's room, and the dispensary.

Through its educational facilities the Jackson High School is meeting and overcoming many of the problems of the community and the school.

### **Belgium Considers Physical Education in Schools**

Unusual interest in sports has followed the World War in Belgium, according to William C. Burdett, the American Consul at Brussels.

Contact with American and British troops, according to Mr. Burdett, stimulated the spirit of sports in the Belgian army, and the spirit has expanded into general life and into the school systems.

Before the war comparatively little attention was paid to sports in Belgium, and the development of physical culture even met with some opposition by the Belgian public. Little initiative was taken to teach the public the value of physical exercise, and whenever a suggestion was made to introduce an obligatory course of physical training in the Belgian schools it was objected to by the faculties of these establishments on the ground that the Belgian law held them responsible for all accidents to their pupils during school hours and they did not like to see their responsibility increased.

#### *Plan Compulsory Physical Education*

The official attention of the Belgian government has been attracted several times to the movement launched by the Societe de Culture Physique. A government bill rendering physical education obligatory in all elementary and secondary schools and allowing substantial credits for university sports was introduced some time ago in the Chamber of Representatives but was rejected because it contained a clause reducing the term of military service in proportion to the results obtained during the period of school training.

# A Study of Space Provisions in New Junior High Schools

*Some of the recently constructed school buildings in this country have been carefully classified and few were found that provide well-balanced, modern plans*

BY B. F. PITTINGER, SCHOOL OF EDUCATION, UNIVERSITY OF TEXAS

THE DATA presented herein are the fruits of a study of thirty-nine floor-plans for new junior high-school buildings that appeared in the *American School Board Journal* from January, 1921, to December, 1925, inclusive. Following the basis used by the United States Bureau of Education, the plans may be classified according to sections of the country represented, as follows: Central states, fifteen plans; Eastern, twelve; Southern and Western, six each.

The procedure has been to count the number of rooms appearing in each plan, omitting corridors, fire rooms, fuel rooms, etc., and to classify these rooms as appears in the various tables. No attention has been given to size or dimensions of either building or rooms. Several of the plans gave no scale measurements. There appears to be a very definite relationship between the number of rooms provided for a department in a building and the number of children and the variety of services that are accommodated therein.

## *Basic Data in Table I*

The general problem of the study has been to discover the varieties of space provisions made in modern junior high-school floor plans, and the relative number of rooms assigned to each type of service. Table I contains all basic data relating to this problem. Here the plans are arranged from smallest to largest, as determined by number of rooms; and the number of general classrooms, special instructional rooms, administration rooms, and general service rooms, indicated for each plan. The following facts are shown by this table:

Every plan provides for general classrooms. Roughly, the number of general classrooms increases with the size of the building; but the exceptions to this statement are striking. Thus, plan Number 1, for an eleven-room building, calls for six general classrooms; while plan Number 26, for a seventy-room building, calls for only eight.

Twenty-nine plans provide accommodations for general science, six for biology, and three for physics and chemistry. General science clearly predominates in this group of schools. But it is rather disconcerting to find eight new junior high schools, of which two are housed in buildings of more than eighty rooms, planning no accommodations whatever for science work.

## *Shop Provisions*

Five of the plans—all small—make no provision for shop work. Twelve provide for wood, machine, and print shops; eight for wood and machine shops; three for machine and print shops; one for wood working and printing; five for wood working; four for machine shops; and two for printing work, only. Wood working is provided for, in all, in twenty-six plans, machine work in twenty-seven, and printing in sixteen. Only one plan—a small one—calls for unspecialized “shops.” No buildings of under fifty rooms provide for more than two sorts of shop work.

The five smallest plans make no provision for home economics. A sixth, also small, calls for three rooms for “domestic science.” In all others provision is made definitely for sewing (one plan), or cooking (five plans), or both (twenty-seven plans). Buildings of more than twenty-five rooms consistently make provision for this work.

Twenty-one plans make no provision for the housing of commercial work; six of these being of more than seventy rooms. The number of rooms allotted to this department, and the consequent variety of work anticipated, show some positive correlation with the size of building.

Only two of the largest plans set aside a room specifically for vocational guidance.

Twelve plans, mostly small, make no provision for drawing. A general “drawing” room appears in one; a room for freehand drawing only in six; one for mechanical drawing only in five; while fifteen plans provide space for both freehand and mechanical drawing.

Only fifteen plans designate space for the teaching of music; only the two largest have more than one room; none has more than two.

Every building but one—and that, one of ninety-three rooms—provides office space for the principal. One room only is set aside for this purpose in twenty-one plans, and two rooms only in fifteen. Only two plans provide for a suite of more than two rooms. Teachers' and rest rooms appear in all but five plans and range in number from thirteen in one plan to one in eight plans. The number of such rooms correlates rather definitely with the total number of rooms in the building.

#### *Considering General Service Rooms*

We now come to the general service rooms—auditorium, cafeteria, gymnasium, health service, and library. Every plan provides for two or more such rooms, and fifteen plans provide for all five. Thirty-six of the plans contain an auditorium (four have two); twenty-nine, a cafeteria; twenty-six, one or more gymnasiums; twenty-five, health service rooms; and thirty-six, at least one library (five have two, and one has four). A full complement of general service rooms is not found in any plan for less than thirty rooms.

All but three plans provide for storerooms that

range in number from one to eighteen. Separate toilets for boys and girls appear in every plan, and one or more special toilets in nineteen plans. A definite tendency exists to provide a toilet for children of each sex on every floor. Two other diverse tendencies are to provide: First, a few large toilet rooms, each accommodating children in considerable numbers; or second, several small toilet rooms, for a few children each, liberally distributed about the building. The first plan obviously promotes economy in the placement of plumbing fixtures, while the second promotes comfort and convenience. Special toilets, of course, go with offices, rest rooms, auditoriums, and health service rooms, where they are found at all.

Workrooms are found in all but seven of the plans, and range in number from one to eight per plan. Only four of the buildings—all large—provide swimming pools. Seven plans only are without locker or dressing rooms, the former to go with the gymnasium and health service, and the latter with the auditorium stage.

Table II contains the basic data for a study of the proportions of the space in each building devoted to instruction, and to the several specialized departments. The plans are arranged and numbered from smallest to largest as in Table I. The number of rooms, and the percentage of the total

TABLE II—PROPORTIONAL ALLOTMENTS OF SPACE

School (Numbered as in Table I)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<i>Instructional Rooms—</i>															
<i>General Classrooms—</i>															
Number of Rooms.....	6	8	6	17	16	13	9	14	21	26	23	33	27	28	33
Per Cent of Total.....	54.5	53.2	37.5	70.8	64	50	31	46.7	56.8	56.5	48.9	68.7	54	56	60
<i>Science Rooms—</i>															
Number of Rooms.....	0	2	0	0	2	0	0	0	2	3	1	2	2	3	2
Per Cent of Total.....	0	13.3	0	0	8	0	0	0	5.4	6.5	2.1	4.2	4	6	3.7
Per Cent of Instructional.....	0	25	0	0	12.5	0	0	0	9.5	11.5	4.3	6.1	7.4	10.7	6
<i>Shops—</i>															
Number of Rooms.....	0	0	0	2	0	2	1	0	4	5	4	5	3	2	4
Per Cent of Total.....	0	0	0	8.3	0	7.7	3.4	0	10.9	10.9	8.6	10.4	6	4	7.3
Per Cent of Instructional.....	0	0	0	11.8	0	15.4	11.2	0	19.2	19.2	17.4	15.1	11.1	7.2	12.2
<i>Home Economics—</i>															
Number of Rooms.....	0	0	0	0	0	2	3	3	2	3	2	4	2	3	3
Per Cent of Total.....	0	0	0	0	0	7.7	10.4	10	5.4	6.5	4.2	8.3	4	6	5.4
Per Cent of Instructional.....	0	0	0	0	0	15.4	33.3	21.4	9.5	11.5	8.7	12.1	7.4	10.7	9.1
<i>Commercial Department—</i>															
Number of Rooms.....	0	0	0	2	2	0	0	0	0	0	2	0	0	0	1
Per Cent of Total.....	0	0	0	8.3	8	0	0	0	0	0	4.2	0	0	0	1.9
Per Cent of Instructional.....	0	0	0	11.8	12.5	0	0	0	0	0	8.7	0	0	0	3
<i>All Vocational Rooms—</i>															
Number of Rooms.....	0	0	0	4	2	4	4	3	6	8	8	9	5	5	8
Per Cent of Total.....	0	0	0	16.6	8	15.4	13.8	10	16.3	17.4	17	18.7	10	10	14.6
Per Cent of Instructional.....	0	0	0	23.6	12.5	30.8	44.5	21.4	28.7	30.7	34.8	27.2	18.5	17.9	24.3
<i>Drawing Rooms—</i>															
Number of Rooms.....	0	1	0	0	0	0	0	0	0	1	0	1	0	0	3
Per Cent of Total.....	0	6.6	0	0	0	0	0	0	0	2.2	0	2.1	0	0	5.4
Per Cent of Instructional.....	0	12.5	0	0	0	0	0	0	0	3.9	0	3.1	0	0	9.1
<i>Music Rooms—</i>															
Number of Rooms.....	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0
Per Cent of Total.....	0	0	0	4.1	4	3.8	0	0	0	0	0	0	2	0	0
Per Cent of Instructional.....	0	0	0	5.8	6.2	7.7	0	0	0	0	0	0	3.8	0	0

number of rooms that is devoted to instruction in each plan, are next shown; then the number, percentage of total, and percentage of instructional rooms used as (1) general classrooms, or given over to (2) science, (3) shops, (4) home economics, (5) commercial training, (6) all vocational instruction, (7) drawing, and (8) music, are indicated. From this table it is easy to derive the medians, and the quartile and extreme limits, of the percentages of total space, and of instructional space, devoted to each specialized department. These measures are presented in Tables III and IV.

Table III shows that the median building devotes exactly fifty per cent of its total space, measured in terms of number of rooms, to instruction. This means that one-half of the plans provide a smaller proportion of instructional space than is ordinarily recommended. In actual area, the proportion also is doubtless somewhat lower than the room-count indicates, since large rooms, like the auditorium and gymnasium, are here counted as noninstructional, while corridors, etc., are not included here at all. Everything considered, the majority of the plans are noticeably below standard in this important respect.

The median plan devotes thirty per cent of its rooms to general classroom purposes, less than

three per cent to science, and fourteen per cent to the vocational subjects. Of instructional space only, in the median plan, sixty-one per cent is given to general classrooms, five per cent to science, and twenty-eight per cent to vocational work. The "middle fifty per cent," and the extreme percentages, also appear in the tables. Drawing and music rooms have been omitted from each of these and the following tables because of their relatively infrequent and limited appearances.

#### Relative Space Ranks

Table V is derived from Table II, and shows the relative ranks of the different schools in total space and in special space provisions. Thus plan 1, the smallest in total size, ranks high (twenty-eighth) in per cent of total space given to instruction, highest of all (thirty-ninth) in the per cent given to general classrooms, and very low in the per cent given to science and the vocational subjects. Its ranks in percentage of instructional space given to general classrooms and to science and vocational rooms are also given. Similar facts appear for each of the thirty-nine plans embraced in the study. From this table rank-difference correlation coefficients have been derived, and are presented herewith in Table VI.

PROVISIONS FOR DIFFERENT INSTRUCTIONAL PURPOSES

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
25	29	31	31	28	28	29	40	36	48	27	37	28	31	32	40	53	46	34	34	57	42	44	53
43.8	49.1	52.5	50	44.4	44.4	45.3	59.7	52.9	69.6	38.5	52.9	40	40.8	42.1	47.1	61.6	53.5	38.4	36.9	61.3	43.7	44.4	52.4
12	16	18	16	16	16	17	27	16	35	8	13	17	25	22	24	30	38	22	24	26	32	48	28
21.1	27.1	30.5	25.8	25.4	25.4	26.5	40.3	23.5	50.7	11.4	18.9	24.4	32.9	29.1	28.2	34.9	44.2	25	26.1	27.9	33.3	18.4	28
48	55.2	58.1	51.6	57.1	57.1	58.6	67.5	44.3	72.9	29.6	35.1	60.7	80.6	69	60	56.6	82.6	64.8	70.6	45.6	76.1	40.9	52.8
4	1	1	1	2	1	4	2	2	1	5	3	1	1	2	0	2	0	1	0	5	3	5	4
7	1.7	1.7	1.6	3.2	1.6	6.2	3	2.6	1.5	7.1	4.3	1.4	1.3	2.6	0	2.4	0	1.1	0	5.4	3.1	5	3.9
16	3.4	3.2	3.2	7.2	3.6	13.7	5	5.6	2.1	18.6	8.1	3.6	3.2	6.2	0	3.8	0	2.9	0	8.7	7.1	11.4	7.5
4	6	5	5	4	6	3	3	11	3	2	11	6	2	2	5	10	3	3	4	4	2	5	6
7	10.2	8.5	8.2	6.3	9.4	4.7	4.5	16.2	4.3	2.7	15.8	8.7	2.6	2.6	5.9	11.6	3.5	3.4	4.3	4.3	2.1	5.	5.9
16	20.7	16.1	16.1	14.2	21.3	10.3	7.5	30.5	6.3	7.4	29.7	21.5	6.4	6.2	12.5	18.8	6.5	8.8	11.8	7	4.8	11.4	11.3
3	3	4	4	3	1	3	5	3	4	6	5	2	1	2	7	6	5	4	4	8	2	5	8
5.3	5.1	6.8	6.4	4.7	1.6	4.7	7.4	4.4	5.8	8.7	7.1	2.7	1.3	2.6	8.2	6.9	5.8	4.4	4.3	8.6	2.1	5	7.9
12	10.3	12.9	12.9	10.7	3.6	10.3	12.5	8.3	8.3	22.2	13.5	7	3.2	6.2	17.5	11.3	10.9	11.8	11.8	14	4.8	11.4	15.2
0	0	1	2	2	2	0	0	2	1	3	2	0	0	2	2	0	0	0	0	7	2	4	3
0	0	1.7	3.2	3.2	3.2	0	0	2.6	1.5	4.3	2.7	0	0	2.6	2.4	0	0	0	0	7.5	2.1	4	2.9
0	0	3.2	6.5	7.2	7.2	0	0	5.5	2.1	11.1	5.4	0	0	6.2	5	0	0	0	0	12.3	4.8	9	5.6
7	9	10	11	9	9	6	8	16	8	11	18	8	3	6	14	16	8	7	8	19	6	14	17
12.3	15.3	17	17.8	14.2	14.2	9.4	11.9	23.2	11.6	15.7	25.6	11.4	3.9	7.8	16.5	18.5	9.3	7.8	8.6	20.4	6.3	14	16.7
28	31	32.2	35.3	32.1	32.1	20.6	20	44.3	16.7	40.7	48.6	28	9.6	18.6	35	31	17.4	20.6	23.6	33.3	14.4	31.8	37.1
1	2	2	2	1	2	2	2	1	4	3	2	1	2	2	2	5	0	3	2	6	1	5	2
1.7	3.3	3.3	3.2	1.6	3.2	3.2	3	1.3	5.8	4.3	2.7	1.4	2.6	2.6	2.4	5.8	0	3.4	2.2	6.4	1	5	1.9
4	7	6.5	6.5	3.6	7.2	6.1	5	2.9	8.3	11.1	5.4	3.6	6.4	6.2	5	9.5	0	8.8	5.8	10.5	2.4	11.4	3.8
1	1	0	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	1	0	2	2
1.7	1.7	0	1.6	0	0	0	1.5	1.3	0	0	1.4	1.4	0	0	0	0	0	1.1	0	1.2	0	2.2	1.9
4	3.4	0	3.2	0	0	0	2.5	2.9	0	0	2.8	3.6	0	0	0	0	0	2.9	0	1.9	0	4.5	3.8

TABLE I—TYPES AND AMOUNTS OF SPACE PROVISIONS IN RELATION TO SIZE OF BUILDINGS

School . . . . .	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Total Rooms in Building . . . . .	11	15	16	24	25	26	29	30	37	46	47	48	50	50	55	57	59	59	62	63	63	64	67	68	69	70	70	76	76	85	86	88	92	93	96	99	101			
General Classrooms . . . . .	6	5	6	12	11	8	5	11	13	14	14	21	19	20	20	12	16	18	16	16	17	27	16	35	8	13	17	25	22	24	30	38	22	34	26	32	18	28		
General Science Rooms . . . . .	0	2	0	0	2	0	0	0	2	2	1	2	2	2	3	1	1	2	1	3	2	2	1	5	3	1	1	2	0	1	0	0	0	3	2	3	4			
Biology Rooms . . . . .	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Physics and Chemistry . . . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Wood Shops . . . . .	0	0	0	0	0	0	0	0	2	0	0	2	0	2	1	0	2	2	1	0	2	3	0	2	2	1	0	1	6	0	1	0	1	2	1	4	1	1	1	1
Machine Shops . . . . .	0	0	0	2	0	0	0	0	2	4	1	0	0	2	3	3	2	4	4	3	0	3	8	0	1	5	5	1	2	3	6	1	1	0	2	1	3	4		
Printing Shops . . . . .	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	1	0	0	1	0	0	1	0	0	1	2	0	1	0	1	0	1	0	1	
General Shops . . . . .	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sewing Rooms . . . . .	0	0	0	0	1	0	0	2	0	1	0	1	0	1	2	2	1	1	1	3	1	2	3	1	1	0	1	0	3	3	1	0	2	1	3	3	3			
Cooking Rooms . . . . .	0	0	0	0	1	0	1	2	2	2	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5		
General Domestic . . . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Commercial Rooms . . . . .	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ed. & Voc. Guidance . . . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Freehand Drawing . . . . .	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	1	1	0	1	1	2	0	3	2	1	1	1	2	3	0	2	1	3	0	2	1			
Mechanical Drawing . . . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
General Drawing . . . . .	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Music Room . . . . .	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Office . . . . .	1	1	1	2	1	1	1	2	1	0	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1			
Teachers' & Rest. Rooms . . . . .	0	1	1	0	1	1	2	1	0	1	2	0	1	2	4	4	3	1	3	2	3	2	3	2	3	2	3	2	3	1	2	1	1	1	2	1	1	1		
Auditorium . . . . .	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2		
Cafeteria . . . . .	0	0	0	0	0	0	0	0	1	0	0	2	1	0	1	3	2	2	3	2	3	0	3	4	2	1	2	3	2	0	2	2	0	2	4	3	4	2		
Gymnasium . . . . .	0	1	0	0	1	2	0	0	0	2	0	1	1	1	1	1	1	1	1	2	3	0	1	1	2	3	0	1	0	2	1	1	0	1	1	4	2			
Health Service . . . . .	0	0	0	0	0	0	0	2	1	1	0	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		
Library . . . . .	1	1	1	1	0	1	1	1	2	1	1	2	1	1	2	4	3	1	3	2	3	2	3	0	1	1	2	3	1	2	7	2	2	2	4	7	4	13		
General Store Rooms . . . . .	0	0	1	0	1	0	1	2	4	1	1	4	3	2	5	3	3	3	7	6	4	1	1	2	4	6	4	6	5	8	5	2	14	10	2	7	2			
Special Store Rooms . . . . .	0	0	2	0	1	2	2	0	1	4	1	2	2	0	1	0	3	0	1	1	0	3	1	4	7	3	7	4	6	0	2	7	4	4	0	7	3			
Boys' Toilets . . . . .	1	1	1	2	1	1	1	2	2	2	3	2	3	2	3	3	4	3	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Girls' Toilets . . . . .	1	1	1	2	1	1	2	2	2	3	2	2	3	2	2	3	3	2	2	3	2	2	3	2	2	3	2	2	3	2	2	3	2	2	3	2	5	2		
Special Toilets . . . . .	0	0	1	0	0	0	1	2	0	0	0	2	0	0	0	1	1	1	0	0	1	0	2	0	0	3	0	7	2	4	0	1	2	0	2	7	1	0		
Swimming Pool . . . . .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Work Rooms . . . . .	0	0	0	0	0	0	0	1	0	0	0	2	4	1	1	1	2	1	4	3	4	3	2	2	4	3	2	4	3	2	4	4	3	2	1	6	5	5		
Locker & Dressing . . . . .	0	0	0	0	2	0	0	4	0	2	3	3	2	0	6	3	4	6	9	8	4	1	6	2	6	1	5	5	11	5	7	11	14	12	4	11	6	3		

TABLE III—SHOWING TOTAL RANGES, INTERQUARTILE RANGES, AND MEDIANs, OF PERCENTAGES OF TOTAL SPACE (NUMBER OF ROOMS) DEVOTED TO INDICATED PURPOSES.

Measures	Rooms	Pctg.			
		Total Space	Total Space	General Class-rooms	Science Rooms
High ....	70.8	54.5	13.3	25.6	
Third					
Quartile .	56.5	37.5	5.0	16.6	
Median ..	50.0	30.4	2.6	14.0	
First					
Quartile .	43.7	25.4	1.1	9.3	
Low ....	31.1	11.4	...	...	

The correlations presented in Table VI are merely the more important ones from the standpoint of building-planning that are derivable from Table V, which offers data for numerous other correlations, and a large group of partial correlations. Of the correlations here presented, Numbers 3 and 4 in the table are practically zero; Number 1 is doubtful, and Numbers 5, 2, and 6 are decisively and increasingly negative. The percentage of rooms devoted to general class instruction seems to decrease with increase in size of building. Increase in size of building, therefore, affects other types of space more than this. Again, increase in the percentage of instructional rooms used for general instruction means decrease in the percentage of science rooms and, even more decidedly, decrease in the percentage used for vocational instruction. The plans appear, therefore, to fall roughly into four types; those that emphasize general instruction, those that emphasize science, those that emphasize vocational work, and those that give a balanced recognition to all three sorts of instructional activities.

#### *Examination Corroborates These Assumptions*

These suggestions are corroborated by examination of the space assignments in the several individual schools. Referring again to Table II, we observe that the eight smallest buildings, up to a total size of thirty rooms, make very slight, if any, provision for science, and the three smallest make no provision whatever for any instructional rooms except general classrooms. Of the larger buildings, Numbers 22, 29, 30, 33, 34, 35, and 37 make relatively small provision for vocational instruction, while Numbers 24, 27, and 36

make a relatively large provision. Science is omitted from Numbers 31, 33, and 35, and given a large relative provision in Numbers 14, 16, 22, 26, 36, and 38. Of the larger buildings, Number 26 shows a relatively small, and Number 25, a relatively large, proportion of general classrooms. Obviously, the differences reflect differences in purpose that cannot be accommodated to medians and quartiles, or to correlation coefficients, derived from the entire series. Despite these facts, however, the central tendencies and correlations given above assist in forming a picture of the current situation in junior high-school building-planning, to the extent that the plans included in this study are representative of the movement.

#### *"Composite" Junior High-School Building*

By way of summary, it may be of interest to picture a "composite" junior high-school building representing this group of thirty-nine plans. It will be of approximately sixty rooms; about thirty of which will be devoted to instruction (including general classrooms, science, vocational, and art and music rooms), and thirty to other purposes and activities. Of the instructional rooms, about eighteen will be used as general classrooms, two for general science, seven for vocational work (three shops; one for wood working, one for machine practice, and one for printing; a room for cooking and another for sewing; and two commercial department rooms), two rooms for drawing (one for freehand and one for mechanical), and a music room.

The so-called noninstructional rooms will include a principal's office, an auditorium, a gymnasium, a cafeteria, two health service rooms, a library, four toilet rooms (two for boys and two

TABLE IV—SHOWING TOTAL RANGES, INTERQUARTILE RANGES, AND MEDIANs, OF PERCENTAGES OF INSTRUCTIONAL SPACE DEVOTED TO INDICATED PURPOSES.

Measures	Classrooms	Pctg.		
		Instruc-tional Space	Instruc-tional Space	Instruc-tional Space to General to Science Vocational
High .....	100.0		25.0	48.6
Third				
Quartile ...	70.6		8.7	32.1
Median ....	60.9		5.0	28.0
First				
Quartile ...	55.2		2.1	18.5
Low .....	29.6		...	...

TABLE V—RELATIVE RANKS OF SCHOOLS IN TOTAL SPACE AND IN SPECIAL SPACE PROVISIONS.

Rank in Total Size (as in Table I)	Ranks in Percentage of Total Space to				Ranks in Percentage of Instructional Space to		
	Instruction	General Classrooms	Science Rooms	Vocational Rooms	General Classrooms	Science Rooms	Vocational Rooms
1	28	39	4.5	2	38.5	4.5	2
2	25	24.5	39	2	23	39	2
3	3	30	4.5	2	38.5	4.5	2
4	39	37	4.5	29	30.5	4.5	16.5
5	36	35	38	8	27	35	5
6	19.5	22	4.5	25	21	4.5	25
7	1	2	4.5	19	11	4.5	38
8	15	29	4.5	13	35	4.5	15
9	31	27	31.5	27	22	31	22
10	30	20	35	33	9	33.5	24
11	17	19	18	31.5	20	19	33
12	37	34	28	36	24	23	19
13	27	31	27	13	29	27	10
14	29	32	33	13	32	32	9
15	33	28	25	23	18	22	18
16	11	5	36	18	6	37	20.5
17	18	14	16.5	24	10	15	26
18	22	21	16.5	31.5	15	13	31
19	19.5	11	14.5	34	7	13	35
20	13	9.5	24	21.5	13.5	26	29
21	13	9.5	14.5	21.5	13.5	16.5	29
22	9	13	34	11	16	36	13.5
23	32	33	22	17	26	20	12
24	23.5	6	20.5	38	4	21	37
25	38	38	13	16	33	10	7
26	5	1	37	26	1	38	36
27	23.5	4	29	39	2	29	39
28	6	7	12	15	19	16.5	20.5
29	7	23	11	4	36	13	4
30	8	18	20.5	6.5	28	24	11
31	16	17	4.5	28	17	4.5	34
32	35	26	19	35	12	18	23
33	26	36	4.5	10	37	4.5	8
34	4	8	10	6.5	25	11	13.5
35	2	12	4.5	9	30.5	4.5	16.5
36	34	15	31.5	37	5	30	32
37	10	24.5	23	5	34	25	6
38	13	3	30	20	3	33.5	27
39	21	16	26	30	8	28	29

for girls), a teachers' and rest room, three special toilets (one next to the principal's office) and one for men and another for women teachers, two dressing rooms (off the auditorium stage), two workrooms, two locker rooms and two shower rooms (separate for boys and girls, off the gymnasium), a vocational and educational guidance room, and a half-dozen storage rooms for various purposes, properly placed. While no one plan in the series exactly conforms to this pattern, it expresses the tendencies and proportions revealed by the entire group. The plan also will very effectively fit the program of a modern school of this level, as set forth by various authorities on

the junior high-school objectives and curricula.

In this summary, however, we must also note the failure of many of the plans to make provision for a well-balanced modern junior high school. The small plans provide mainly for stereotyped academic work only, and neglect provision for the other "exploratory" work that should characterize this type of school. And few of the larger plans are really well-balanced. The commercial department is frequently omitted; the shop-work frequently one-sided; home economics is sometimes reduced to one room; science is occasionally not provided for; while in one or two instances these branches are served at the obvious

TABLE VI—SOME RANK-DIFFERENCE CORRELATION COEFFICIENTS.

1. Rank in total size with rank in percentage of total given to instructional purposes .....	.25	$\pm .10$
2. Rank in total size with rank in percentage of total given to general classrooms .....	.39	$\pm .09$
3. Rank in total size with rank in percentage of total given to science rooms .....	.01	$\pm .11$
4. Rank in total size with rank in percentage of total given to vocational rooms .....	.096	$\pm .106$
5. Rank in percentage of instructional rooms used as general classrooms with percentage used as science rooms .....	.29	$\pm .097$
6. Rank in percentage of instructional rooms used as general classrooms with percentage used as vocational rooms...	.66	$\pm .062$

expense of the academic subjects. Music is apparently neglected in the great majority of plans. Probably the auditorium is expected generally to serve for this purpose.

In conclusion, then, it appears that while in a composite view, the plans herein described are well adapted to the housing of a really modern junior school, in individual instances they are very frequently short or unbalanced in their space provisions.

### Advocate Special Election for School-Board Members

Authorities on city school administration advocate that the members of an elective board of education be elected at a special school election on a nonpartisan ticket; or if they are elected at a general city election, the names of the candidates for school-board membership should not appear as belonging to certain political parties, according to W. F. Deffenbaugh, chief of the city schools division, Bureau of Education.

The advantages claimed for the plan of electing school-board members at a special election are that they are more likely to be elected without regard to political parties; that the electors exercise more care in voting for a candidate at a special election than at the regular election, where city, county, and state officials are given more

consideration than school officials; and that a special election fixes the attention of the people upon their schools.

On the other hand, it is claimed that since only one or two school-board members are elected at a time it is poor economy to hold a special election; that only a few of the people vote at a special election; and that equally as good men may be secured if voted for at a general election, especially if they have been nominated by petition and voted for on a separate ballot without designation as to party.

It seems, however, that the schools are of such importance that a city can well afford to hold a special election once a year to elect school-board members and to vote upon such other school matters as require a vote of the people. The expense would be practically negligible if the school buildings were utilized for election purposes, especially for school elections. The argument that only a few persons vote at a special election may be passed by with the remark that the voting at least is not as perfunctory as at general elections. At least, all who do vote are interested.

### Restriction of Use of Automobiles by College Students

Certain matters of convention and practice that are usually not interpreted in normal senses, but are of importance and significance in the college social community, continue to receive attention. The regulation of the use of automobiles has received much publicity, largely because of the action taken by the University of Illinois in forbidding their use in the university community during the school term.

Institutions as far apart as Princeton and the Texas Agricultural and Mechanical College have also inaugurated drastic motor-car regulation. It is argued in support of careful regulation of the use of motor cars by students that automobile users tend to low scholarship and waste of time; that accidents, violation of law, and moral delinquencies result from free use of this means of transportation and recreation.

In spite of the discussion and the action condemning student use of the automobile, drastic restriction has been on the whole regarded by many institutions with amusement. In some instances it is contended that cutting off automobile privileges does not meet the fundamental situation, which is to provide training that will give self-control in regard to use of time, inspire care for the rights of others, create interest in scholarship, and insure respect for the law, both statutory and moral.

# What Tendencies Should Educators Encourage?

*A clear-thinking analysis of developing factors selects political influence, dual administration, and propaganda in the curriculum as those to be definitely opposed*

BY DR. JOHN CAYCE MORRISON, ASSISTANT COMMISSIONER OF EDUCATION, NEW YORK STATE, ALBANY

IN American education relatively few issues are established beyond the question of minorities. A thousand differences of opinion are at work, some continuously, others spasmodically. Out of this welter of conflicting ideas a few tendencies loom large; many have the weight of years of experience back of them. Which of these shall we endorse and promote? Which shall we discourage?

### *Those to Be Encouraged*

*Educational research.* In the old days educational policy was formulated primarily on the basis of opinion. Out of varied experiences men gained certain impressions. Gradually these crystallized into opinions. They were passed on to others and became cumulative experience. In time they were traditions.

But tradition is unreasoned. Cumulative experience is not infallible. To-day, no educational organization can hope to exercise large leadership and to exert a lasting influence upon education unless it subjects its administrative experience and its cherished traditions to the cold test of research, *i.e.* of scientific analysis and evaluation.

George Santayana writes, "To covet truth is a very distinguished passion." Educational research covets truth. When a new policy is to be formulated or when an old one is to be evaluated, educational research would seek all the data that have a bearing upon the issue at stake, would collect these facts, organize them, analyze them, and interpret them to the man or group of men who ultimately must make the decision. In this fashion research re-enforces cumulative judgment—refines, shapes, directs it oftentimes through new channels more closely attuned to the changing social order.

Research in any administrative organization should be a staff function. It must be free from prejudice and self-interest and must be objective in its decision. It is the basis of the judicial

aspects of the administrator's work. It enables him to meet all controversial issues, free from the taint of self-interest, personal bias, and selfish motive.

The educational research unit is a service agency. It exists only to help every other unit improve its own work. It should not only conduct such research as may meet the approval and serve the purpose of the administrative organization of which it is a part, but it should co-ordinate, encourage, and stimulate research and the scientific attitude on the part of all members of the staff.

Based on the principles herein enumerated, the establishment of educational research units in all of our larger administrative organizations should be encouraged, for they will constitute one of the corner-stones of educational progress during the next half century.

### *Budgets Total Millions*

*Business administration.* Expenditures for public education have increased by leaps and bounds. Many of our annual state educational budgets run into the millions; and in our cities it is quite commonly accepted that the educational budgets should range from one-quarter to one-half the total amount of money expended for public purposes. In many of our states and in a few of our larger cities, the annual appropriations for education already exceed in total value the annual budgets of many of our large internationally known business and industrial enterprises. There is hardly a city in the land where the school budget does not exceed the annual budget of many of the more prominent local business concerns. The efficient and wise administration of these large budgets is well beyond the capacity of lay boards for detailed attention and helpful consideration. It is not surprising, therefore, that the public should demand a higher type of business administration than our schools have heretofore enjoyed.

In consideration of this question it is evident that the superintendent should keep his attention focused on the educational issues for which the school exists, and that he must delegate subordinate issues to members of his staff. Since this is true it is patent that the business management of schools should be entirely subordinate to their educational direction. Therefore, the most logical conclusion to be drawn is that every large administrative organization—state, city, or county school system—should have its business manager preferably known as the "assistant superintendent of schools in charge of business affairs," subordinate to the superintendent and working with him so closely that the organization functions quite as smoothly as if it depended solely upon a single individual.

#### *Qualifications of Assistant Superintendent*

The administration of public education from the business standpoint must concern itself not only with the wise and efficient expenditure of funds collected but must also have an understanding of the sources of revenue and the possibilities and limitations of these sources. In other words, the assistant superintendent in charge of business affairs must not only be an expert in business accounting, thoroughly in sympathy with the objectives of the educational system and the functions it is rendering, but he must be well educated in the field of public finance and taxation.

Only with such expert knowledge at its command can the educational leadership of any community, state or local, command the respect of the business elements of the community who are obliged to measure success in terms of dollars. The acceptance of the foregoing means that we shall develop in this country a group of men thoroughly trained in all the aspects of financing and managing the business affairs of public education. This is another tendency that should be widely encouraged.

*Certification.* In 1920 sixteen of our states had made teacher certification solely a state function. Some fifteen or twenty others had moved far in that direction and the process is still underway. The pros and cons of the question are generally recognized throughout the country. The tendency grows out of the definitely established principle that education is a state function. Therefore, a certificate granted by the state educational authorities serves as a symbol, a guarantee on the part of the state, that the holder is qualified to perform the services of the position to which the certificate entitles him. As evidence of the growth of this principle, twenty states have

established the certification of one or more groups of local supervisory officers.

A number of these twenty states have definitely recognized the fact that the administrative or supervisory officer is expected to render services and perform duties over and above those required of classroom teachers and are attempting to establish standards of training and experience which would guarantee to a reasonable extent that the holders of said certificates are qualified to render the highly specialized services required in the administrative and supervisory positions.

In America we have not yet attained the ideal of a college graduate in every position of leadership, but already we are realizing that mere graduation from college carries with it no guarantee that the holder of the college diploma is qualified to perform all the educational and business functions required of a principal or superintendent of a public school. Neither can we develop a great profession of teaching and supervisory leadership unless the state can guarantee to the public, through its system of certification, that the holder of a certificate is ably qualified to perform the services of the position to which the certificate entitles him.

*Larger units for financial and administrative control.* One of the greatest ideals ever promulgated in this country was the placing of a school within walking distance of every child. So long as public highways were little more than dirt trails, largely impassable during certain seasons of the year; so long as the natural community of social interests was included within a radius determined by the meager transportation facilities, it was essential that the school district should correspond with the smaller community interests.

#### *Better Transportation Improves Outlook*

Transportation has changed. With this change has come a broader, social outlook. The radius of community interests has multiplied many times. The school district should be expanded to correspond with the broader community outlook.

With the development of industrial life, rural America is more and more confronted with greater local inequalities in capacity to support public schools. All the principles evolved in business and professional management of schools point to the value of the larger unit. Maryland has led the way by making the county the school unit. A beginning in this direction has already been made in Indiana; and Ohio is well along in the development of the county as a unit for school administration. If one surveys in detail the slow development in this direction for the past twenty years and examines the advantages economically

and educationally of the larger unit as compared with the older common school unit organization, it is obvious that this move should be encouraged.

*Freedom from political influence.* American public education during the last half century has advanced far toward freeing itself from the domination of selfish political interests. On the other hand, the fact that in many of our states the chief educational officer and chief county officer are elected by popular vote means that educational offices are still considered in large measure a part of the spoils belonging to political endeavor.

#### *Spoils System Must Be Discouraged*

The suspension of a superintendent in America's second largest city, the dismissal of a great university president by a board, hand-picked for the purpose, to say nothing of the innumerable incidents of the same type in lesser positions, are positive proof that public education must resist all encroachment in the matter of appointments that is not concerned primarily with the welfare of the children to be served.

*Dual administration.* Certain of our states permit the board of education by statute to employ a business manager who is independent of the superintendent of schools and directly responsible to the board itself. In one state the business manager has life tenure. One of our larger cities has six administrative officials—five besides the superintendent—each independent of all the others and responsible directly to the board. Three or four independent administrative heads are not uncommon. Friends of education everywhere can render no better service to the public good than to eliminate forever in their respective communities the dual or multiple types of administration of the business and professional aspects of public education.

*The curriculum as a medium of propaganda.* The *Century Magazine* for May, 1926, carried a discussion of "recent efforts to overload the public-school courses" under the caption "The Conspiracy." This article, by Commissioner Frank P. Graves, was written out of a rich experience in administering the schools of New York State. Its detail does not need to be repeated here.

Every state legislature and every state education department are continually besieged by minority groups who want to write their own special hobby into the school curriculum.

Curriculum revision should become a scientific process. Those responsible for its development should listen to each proposal, weigh it carefully, and use it if it proves worthy. The time is at

hand when friends of public-school education everywhere should join forces in protecting innocent children from the over zealous groups that want to use the public school as a special agency for the easy attainment of their own selfish ends.

*Flexibility vs. standardization.* Throughout the ages man has learned through trial and error. The introduction of scientific method into education is gradually giving us ways and means of controlling our trials and thereby of eliminating errors. We call this process experimental education. When certain procedures and practices have proved their worth, there is a value to society in standardizing the process. Already we have become a nation of devotees to this new cult. To attain efficiency in administration requires that we pursue it diligently. But while standardization is a process to be encouraged, it should be promoted always with a view to developing the initiative, the originality of the individual, of the group, and of the institution.

#### Home Education Reading Course Procedure Changed

The Bureau of Education, Department of the Interior, has changed the procedure for the reading courses of its home education project. The enrollment and certificate features have been discontinued and a new service to consist of short courses for reading or study containing helps for readers is already under way. The first course to be issued in this service will be for parents to use individually or in reading or study circles.

Courses are now available in a variety of subjects of interest to teachers, parents, children, and others who wish to use guides with which to read worth while books at home. Among the subjects are American literature, history, and biography. These three courses furnish an excellent understanding of the United States, its background and its early history; the ideals and aspirations of its people; its growth and development into a powerful nation. There are courses on child development, and the appreciation of music, fiction, and literature for boys and girls of all ages.

Teachers in many large cities have already availed themselves of the bureau's courses for their own use and to encourage, with the co-operation of parents, the children's home reading.

The bureau offers the reading course service to schools, colleges, universities, state departments of education, and libraries, as well as to individuals. Any of these institutions may adopt the courses and issue certificates of achievements of their own.

# Economical Concrete Floors for School Buildings

*Through the use of lightweight steel beams covered with metal lath or wire mesh reinforcing, the concrete may be poured without the use of forms*

BY C. STANLEY TAYLOR, NEW YORK CITY

WHILE the building industry constantly registers improved methods of construction and types of equipment, it is only rarely that fundamentally new structural methods are developed.

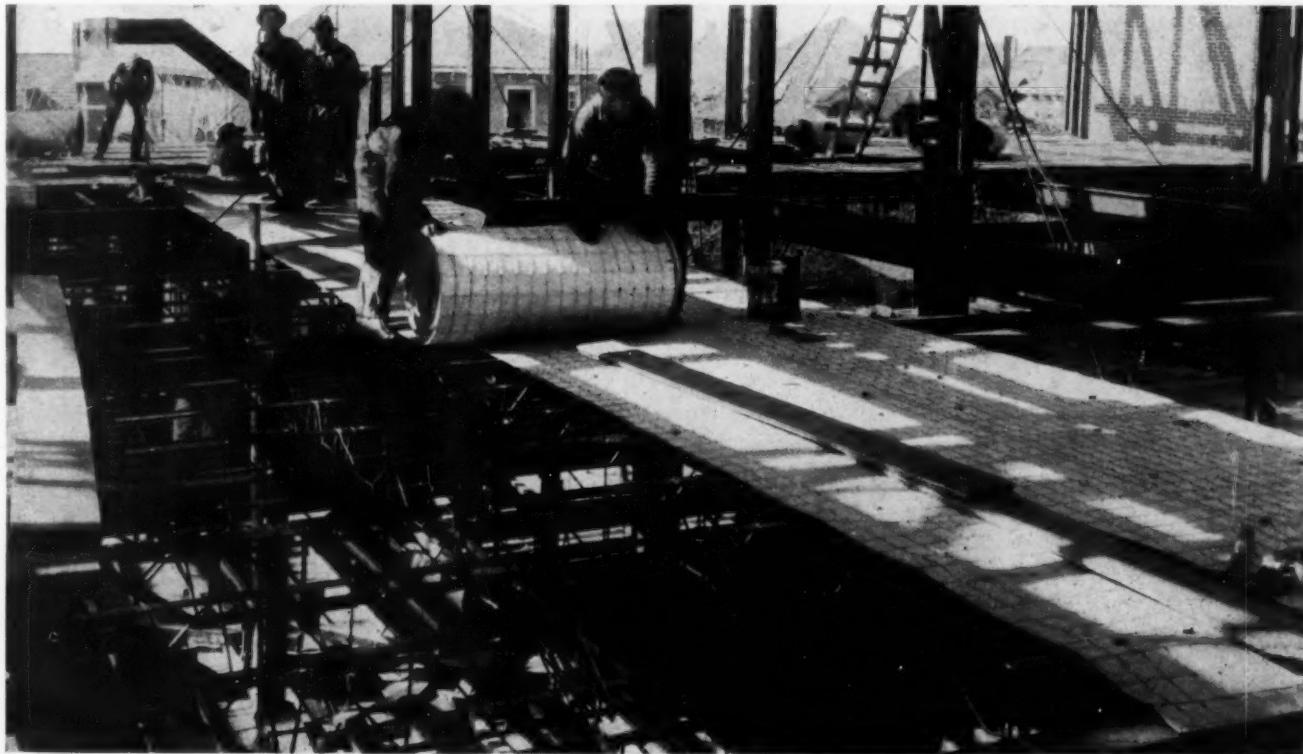
Within the past few years, however, there has come into active use a comparatively new type of concrete floor construction offering a number of advantages for buildings of various types and particularly for school buildings in various parts of the country, except perhaps in the zones of rigid fire-resisting requirements such as are to be found in the larger cities. This system of construction consists of using special lightweight steel beams for the floors and roofs, covering them with metal lath or heavy wire mesh reinforcing as described later, and pouring concrete

directly on this reinforcing without using forms.

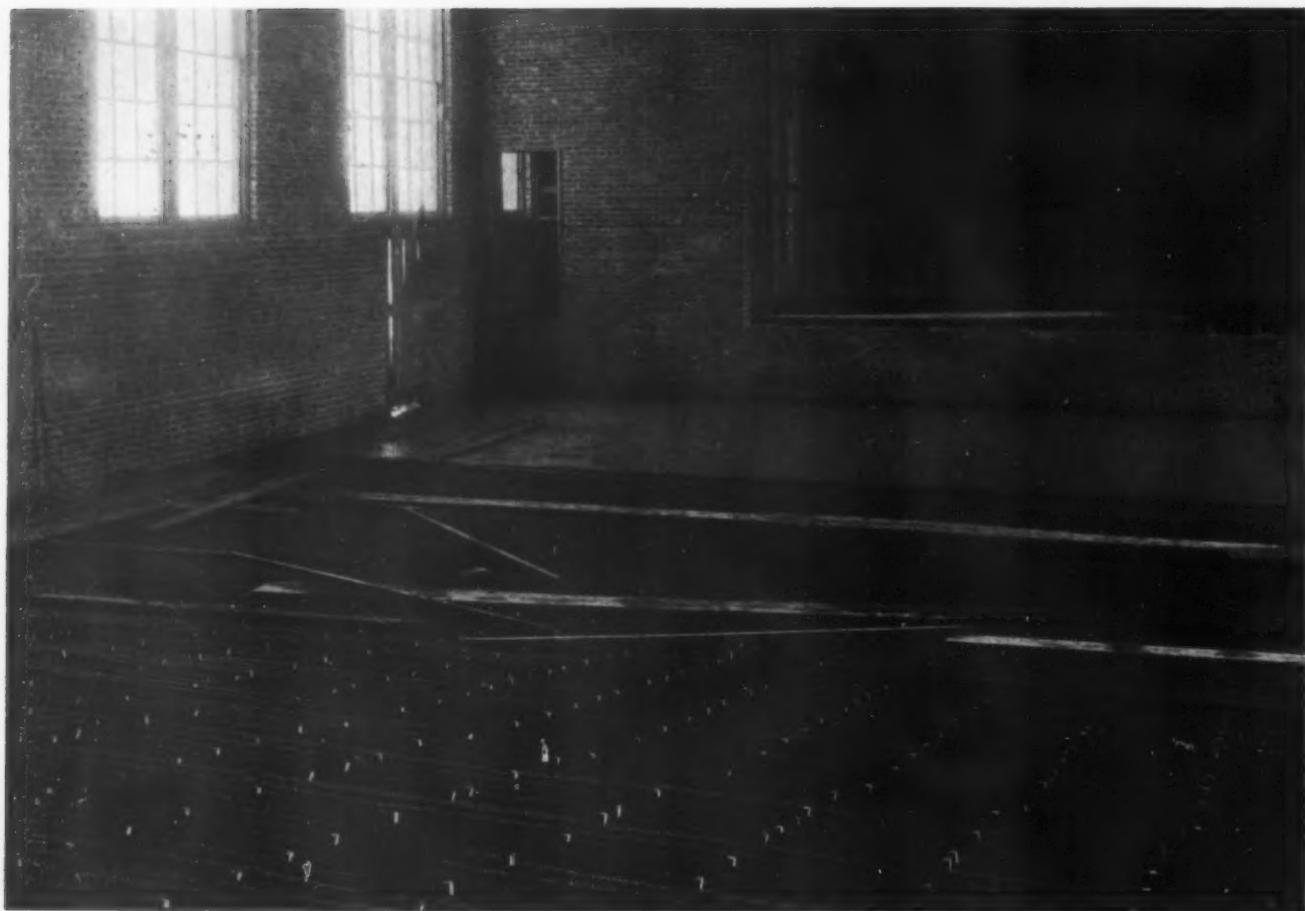
Lightweight steel beams especially manufactured for this purpose are used to carry thin concrete floor slabs across established spans or bays and they are usually installed on sixteen- to thirty-six-inch centers. These secondary steel members are available in various standard sizes and shapes and are fabricated or shipped out of stock directly to the job, ready for erection. They are manufactured in patented designs that may be briefly described as follows:

Welded steel open trusses with round top chords designed to provide lightweight members having ample strength, solid section steel joists with flat top flanges, and those either expanded or fabricated in lattice form.

These joists, of course, are used primarily on



A typical installation of open-web type joists over which welded mesh reinforcing with a waterproof backing is being laid preparatory to pouring the two- or three-inch concrete slab.



*Using metal lath on steel joists does away with the need of forms in the Colored grade school, Raleigh, N. C.*

a structural steel job and as secondary members they are placed across the spans between the primary steel members with the ends resting on the major steel members or on bearing walls or partitions.

In the course of construction the ends are firmly anchored by various clipping or tying devices and the spacing of the joists or trusses varies from sixteen to thirty-six inches, depending on the loads to be carried and the span used. The average spacing is approximately twenty-four inches.

#### *Joists Must Be Stiffened*

After the steel joists have thus been placed in position for the floors and roof, they should be stiffened and held in place by simple wire bridging which completes the structural basis for a concrete floor having a comparatively small dead weight and offering several economies in construction.

To develop the finished floors, there are two methods, one of which is very recent in its introduction. The first method consists of laying across the trusses a complete covering of ribbed metal lath, lapped liberally at the ends, and which is intended to take the place of forms when the

concrete floor is poured. If additional reinforcing is desired in the floor, a layer of heavy gauge steel wire mesh or closely centered pencil rods is placed over the metal lath. The next step depends on the kind of finished floor desired. If the floor is to be of monolithic concrete with cement surface, it is simply a matter of pouring the floor to a thickness of about two or three inches over the metal lath and steel joist construction. The floor is then properly cleaned and surfaced to permit the bonding of the finished cement coat, and it has been completed without the use of forms and with the saving of considerable time.

#### *Sleepers Necessary for Wood Floors*

If the construction of the floors calls for wood surfacing, it is, of course, necessary to introduce sleepers. In this case, the steel joist or truss manufacturers provide various types of chairs which are called screed or sleeper chairs and which are rapidly attached to the joists themselves. The screeds are placed in these chairs that raise them up sufficiently for concrete to flow beneath, and the floor is poured in the usual manner, leaving the top surfaces of the screeds clear for nailing purposes.

The other recently introduced method is to stretch across the top of the joists a material consisting of heavy gauge, three- by four-inch wire mesh to which is fastened a two-ply layer of heavy waterproof backing material. This material comes on the job in large rolls and its application, briefly described, is as follows:

#### *Applying Waterproof Backing*

The end joist is first anchored rigidly to the adjoining wall or heavy steel structural member. The end of the roll of wire fabric with its heavy backing material is then attached by wedges or clips to the anchored joist and rapidly unrolled across the joists to the other end of the floor area, where it is cut off. A simple stretching device is attached to this loose end and the material is stretched tautly across the joists in widths of approximately four feet.

After the material has been stretched, it is wedged firmly at the stretching end and also wedged or clipped to the steel joists or trusses

that are employed. Special clips are provided for use with solid section or expanded steel joists and special wedges are used to be driven into the top of the type of trusses that have round top chords. This operation is repeated until the entire floor area has been covered. When stretched and wedged or clipped to the joist, workmen can walk on this material with impunity, and the pouring of concrete can be carried out quite rapidly.

#### *Backing Material Replaces Forms*

The heavy backing on this material is ingeniously spaced away from the wire mesh reinforcing so that when concrete is poured, the reinforcing wires are automatically imbedded in the concrete, while the backing material itself takes the place of forms and prevents droppings of the cement and fine aggregate, meanwhile helping to sustain the correct water-cement ratio. If screeds are required for nailing purposes, they are set in chairs exactly as previously described



*Pouring the concrete slab after all reinforcing and supporting material has been laid and firmly attached to the joists is a simple and rapid procedure.*

and the concrete is poured, leaving their top surfaces free for nailing.

The floors resulting from this combined system of light steel joists or trusses with the metal lath or wire fabric material used in the place of forms offer several advantages over previous types of floors. In many cases they can be installed at approximately the cost of good wood floor construction, and, of course, they are greatly superior from several points of view. They can also be employed for school work or buildings of almost any type in place of heavy slab floors such as have been formerly used. The advantages, which are evident, include the lessening of the load on the various supporting members of the building; the elimination of fabricating or riveting on the job; the elimination of all form work; and a considerable reduction in the time required for constructing concrete floors. It is quite possible, using this system of construction, to design a somewhat lighter steel job throughout and to eliminate many of the columns required in certain types of buildings.

#### *Fire-Resistive Construction*

If fire-resistive construction is desired, and whenever ceilings are required, as in the case of school work, the construction is very simple, consisting of hanging metal lath to the lower flanges of the trusses and plastering with cement mortar. Since this flooring material is composed of incombustible materials, it provides a complete construction that is desirable from the standpoint of fire hazard. Considered on a practical basis, it would seem that this type of lightweight concrete floor construction is not only specifically adaptable to school work, but offers economy along several lines, probably being the least expensive type of good floor construction available.

This system has already been employed in hundreds of school buildings within the last three or four years and seems to have met with universal favor on the part of architects who have used it. It requires relatively little supervision, but, of course, it is highly important that the erection work shall be carried out by competent contractors who will make sure that the joists are rigidly anchored and properly braced before placing the metal lath or welded steel wire mesh.

For those who are interested in basic data, it may be said that the dead load of a complete floor of this type, including steel joists, concrete slab, sleepers, finished wood floor, and the metal lath and cement mortar used for the ceiling is about forty pounds per square foot.

While this system of construction is comparatively simple, the following precautions are again

emphasized. It is absolutely requisite for good results that the steel joists shall be firmly anchored and bridged. This will provide lateral stiffness. Where centerings greater than eighteen inches are used, this stiffness may be increased by the use of a mesh reinforcement.

#### Average Term of School-Board Members Lengthens

The consensus of opinion is that a small board of education can work much more effectively than a large one, according W. F. Deffenbaugh, chief of the city schools division, Bureau of Education. Few, if any, authorities on school administration favor a board of education of more than nine members. In practice, the size of school boards in cities of 100,000 or more population reporting to the Bureau of Education ranges from three to fifteen members, the median being seven. In cities having a population from 30,000 to 100,000 the size of school boards ranges from three to nineteen members, the median number being seven as in cities of 100,000 or more population. In cities between 5,000 and 30,000 population, the size of boards of education ranges from three to eighteen members, the median number being six.

The prevailing opinion is that school-board members should be elected for a long term, so that there may not be a complete change in the personnel of the board of education every year or two.

#### *Average Tenure Less Than Five Years*

In practice the length of term for which school board members are elected or appointed is generally less than five years. In fifty-five cities of 100,000 or more population reporting to the Bureau of Education, the term ranges from two to seven years, the median length of term being four years. In 131 cities between 30,000 and 100,000 population the term of school-board members ranges from two to six years, the median length of term being three years. In 516 cities between 5,000 and 30,000 population the length of term ranges from two to seven years, the median being three years.

The tendency has been to increase the length of term for which board members are elected or appointed. A comparison of the length of term of members of boards of education in fifty-five cities in 1902 with these same cities in 1917 and in 1927 shows that the average length of term in 1902 was 3.6 years; in 1917, 4.4 years; and in 1927, 4.6 years. Or since 1902 the term for which school-board members are elected or appointed has increased one year.

# Legal Phases of Teacher Selection, Tenure, and Dismissal

*Problems encountered by boards of education in drawing up teachers' contracts justify a careful consideration of the elementary principles of school law*

BY RICHARD B. THIEL, PROFESSOR OF EDUCATION, LAWRENCE COLLEGE, APPLETON, WIS.

A PUBLIC-SCHOOL teacher is not a public officer, but an employee of the board of education, a body acting in the performance of a state function; namely, education.<sup>1</sup> The rights the teacher enjoys under the terms of her employment are based upon her contract with the board. This contract is usually required to be in writing and must represent the action of the board as a body at a meeting called and held according to law.<sup>2</sup> The contract is not binding on the board unless the teacher with whom the agreement is entered into is in possession of a legal license authorizing her to teach in the state, county, or city in the type of school in which she contracts to teach.<sup>3</sup>

In some states it has been held that a contract with a teacher not in possession of the required license at the time the contract was signed is not valid, but may be subsequently ratified by the board provided the teacher secures the legal license before the beginning of the school term.<sup>4</sup> The board of education may delegate to one of their number, or to the superintendent, authority to enter into contract with teachers providing these agents act within the scope of their authority and in behalf of the corporation.<sup>5</sup>

In order to avoid complications, such acts should be later ratified by the board of education at a regular meeting and spread upon the minutes.

### *Laws Regarding Powers and Duties*

Most of the states have passed very definite laws regarding the powers and duties of boards of education and the courts have been practically unanimous in construing such laws strictly. School districts are held to be quasi municipal corporations with very limited power. Where there is no ambiguity, uncertainty, or doubt about the meaning of the statute, it admits of no con-

struction and the court must apply it as written.<sup>6</sup> In case of disagreement as to the terms of the contract the court will construe its meaning according to the laws of the state governing such matters and will admit rules and regulations of the board of education made in conformance with the same. Persons dealing with a school board are presumed to have full knowledge of the limitations of their powers and are also chargeable with notice of a valid by-law that is adopted by them.<sup>7</sup>

### *Are Such Requirements Unfair?*

Attention has been called to the many requirements often written into contracts bearing upon the teachers' social and community duties and also the restrictions imposed upon them in regard to their dress, habits, and general conduct. A recent article in *Harper's Magazine* by Stephen Ewing, "Blue Laws for School Teachers," seeks to epitomize the unfairness of such measures, many of which are as unwarranted as they are unlawful. It is not necessary to pass on the merits of this contribution.

Yet it serves to emphasize the wisdom of making the terms of the written contract as brief and direct as possible. Since the valid rules and regulations of the board are incorporated into the contract,<sup>8</sup> and all terms favorable to the teacher are likewise considered written in,<sup>9</sup> the inclusion of matter not bearing specifically upon the express terms of employment is extraneous.

The question often arises as to whether a clause in a teacher's contract providing that the contract may be terminated by either party upon thirty days' written notice, is valid and enforceable. The courts are well agreed that if the number of days' notice required does not fall within the period of actual service under the contract, the validity of such a clause is not to be questioned unless there is a law which specifically

<sup>1</sup> State v. Smith 49 Neb. 755, 69 N. W. 114.

<sup>2</sup> Dolan v. Jt. School District 80 Wis. 155, 49 N. W. 960.

<sup>3</sup> Flanary, Supt. v. Barrett 146 Ky. 712, 143 S. W. 38.

<sup>4</sup> McCloskey v. School Dist. 184 Mich. 235, 96 N. W. 18.

<sup>5</sup> Dillon's Municipal Corporations, 5th Ed. Par. 785.

<sup>6</sup> Shant v. Jt. School District etc. 210 N. W. 270.

<sup>7</sup> Slattery v. School District etc. Ind. App. 58, 86 N. E. 860.

<sup>8</sup> People v. Chicago 278 Ill. 318.

<sup>9</sup> Thompson v. Gibbs 97 Tenn. 489.

prevents or modifies it.<sup>10</sup> For example: A law recently passed in Ohio prevents a teacher from abandoning a contract after August 1, under conditions other than those stated in the law. The act was designed to prevent eleventh-hour resignations made for the purpose of entering into more favorable contracts. Accordingly, such a thirty-day clause entered into in Ohio would be subject to construction under the laws of that state.

#### *Validity After Instruction Begins*

The question next to be considered, is whether such a conditional contract would be valid after the teacher has commenced teaching. In this connection the Gillan case is often cited. S. Y. Gillan, a teacher in a Wisconsin normal school, was dismissed by the board of regents and sought reinstatement by bringing suit against the board. The court held that his right to receive further salary was terminated by the notice he received, as the statute provided that teachers in normal schools may be dismissed at the pleasure of the board.<sup>11</sup> But as a rule in the absence of such statutory provision a teacher is employed for the school term and if dismissed at the end of the first week's employment without cause, is entitled to damages.

It is therefore clear that if the contract with the teacher is for the school term, or if the law specifies that it is to be for the school year, it is questionable whether the board can dismiss a teacher under the thirty-day clause without showing cause. The courts are somewhat divided in the interpretation of this rule, largely because the laws governing the dismissal of teachers vary in different states. To cite decisions is of little consequence unless it is clear that the law of the given state does not cover the case in hand. For example: In California, substitute teachers may be dismissed at the pleasure of the board; probationary teachers for cause only and with written notice on or before June 10; permanent teachers only after a majority vote of the board upon ten days' notice and for cause. In Minnesota the statute does not cover the case but the departmental ruling (Childs, Sept. 21, 1896) holds that the teacher may be discharged at the pleasure of the board, but for good and sufficient cause.

A recent decision of the Arizona Supreme Court is in point. Ruth Holson was engaged by the board of trustees of the Peoria high-school district at a salary of \$160 per month for the term of ten months beginning September, 1923.

She taught and was paid her salary until January 2, 1924. On December 19, 1923, the board served her with the following notice:

"We, the undersigned, trustees of the Peoria high-school district, hereby give you written notice in accordance with the provisions of your contract, that the same will be canceled two weeks from receipt of this notice by you. Please govern yourself accordingly."

The provision in the contract referred to was the following stipulation:

"It is fully understood by both parties that this contract may be terminated by either party by giving to the other party two weeks' written notice of a desire to terminate the same."

After receiving the notice of her dismissal Miss Holson continued to report at the schoolhouse for some time and until another teacher had been hired to take her place. She then brought suit against the district for the stipulated salary for the balance of the term less her earnings in the performance of other work during that time. The lower court awarded her judgment from which the school district appealed, on the plea that the plaintiff, having agreed to the stipulation in question, has no right to complain.

#### *The Court's Decision*

Following is the decision of the court: "The correctness of this contention depends upon whether the insertion in the contract of such a stipulation is legal or not, and that is the question we shall have to decide. The employment of the plaintiff was in accordance with the spirit and policy of the law. It seems the general rule announced by the courts is to the effect that the power to employ teachers carries with it the power to dismiss, if the law fails either expressly, or impliedly, to state otherwise. The terms of the statute, whatever they be, are written into the contract and cannot be supervened by any act of the board of trustees. Paragraph 2806 of the Civil Code is quoted as follows:

'In case of the dismissal of any teacher before the expiration of any contract entered into between such teacher and the board of trustees, for alleged unfitness, or incompetence, appeal may be had to the county superintendent.'

"This language does not directly confer the power of dismissal upon the trustees, but recognizes the existence of such powers when the teacher is unfit, or incompetent, but in no other case. If the teacher is fit and competent, the power of dismissal does not exist, as the expression of the Legislature, in naming the grounds upon which dismissal could be made by trustees, especially where such grounds are broad enough

<sup>10</sup> Dees v. Board of Ed. 146 Mich. 64, 109 N. W. 39.  
<sup>11</sup> Gillan v. School Board etc. 88 Wis. 7, 58 N. W. 1042.

to cover almost every kind of disqualification imaginable, must be presumed to have intended such grounds to be exclusive and a prohibition against the powers of dismissal exercised arbitrarily or capriciously, or upon a desire to change. When the privilege of teaching is so carefully hedged about the recipient of credentials, who in his work has not shown himself unfit or incompetent, should not be subjected, as to his tenure of employment, to the mere pleasure of the employing agents, and we do not believe that the Legislature intended that it should be."<sup>12</sup> In a similar case a reservation in the contract of the right to discharge was held to be against public policy.<sup>13</sup>

The validity of the reasoning of the court in the above decisions cannot be questioned. Attention is called to the statement that where the grounds for dismissal are broad enough to include almost every kind of disqualification imaginable it must be presumed that such grounds were intended by the legislature to be exclusive. Accordingly, it follows that where the statute is not so comprehensive, the court might recognize grounds other than those set forth in the statutes. An older Kansas case furnishes an excellent illustration of this. In *School District etc., v. Colvin*, 10 Kan. 283, the contract in question contained the following clause:

"The district board reserves the right to discharge the teacher at any time he fails to give satisfaction to said board."

The court upheld this provision and held that the teacher and the school board might enter into a contract for reasons or upon grounds other than those set forth in the statutes.

#### *Board Must Show Cause*

A later Oklahoma case<sup>14</sup> brought out somewhat the same contention. The court held that although under the statute the board of a school district has authority in conjunction with the county superintendent, to dismiss a teacher for incompetency, cruelty, or negligence, such remedy is not exclusive and the school board may contract with the teacher giving the board authority to remove the teacher for these, or other causes. However, both of these decisions agree that it is necessary for the board to show cause and that neither recognizes the power of summary dismissal, whatever the stipulations in the contract may be.

It follows that no thirty-day clause in a teacher's contract has much force after the teacher has begun her term of service. The remedy available to either party must be found in law.

A board of education may enter into contract with a married female teacher, or it may decline to do so. With whom it may contract, as long as the legal conditions of employment are complied with, is entirely within the discretion of the board. May the board in a contract with a female teacher reserve the right of rescinding the same in case the teacher subsequently marries? According to the general law of contracts a person may, for a limited period and for a consideration, refrain from exercising a legal right. It appears clear then that if a teacher signs such a conditional contract and marries before the beginning of her term the board may immediately rescind the contract.

#### *The Marriage Clause*

The case most commonly cited is the one decided by the Appellate Court of Indiana in 1902.<sup>15</sup> Alice E. Roberts, after being told by the trustees that they would not consider employing a married woman, represented herself as being unmarried and stated her intention of remaining unmarried during the school year. Yet two months later when she signed her contract she had already been married four days. As soon as knowledge of this came to the board they rescinded the contract. The court held that although it was not fraud to do what a person had a legal right to do, yet a contract to teach school procured upon condition that the teacher will remain unmarried during the school term may be rescinded upon failure to perform the condition.

Whether this principle may be applied to an executed rather than to an executory contract is not so clear. In other words will such a stipulation operate against a teacher after she has begun teaching? A West Virginia case<sup>16</sup> may be cited. Hallie Jane Jameson had been employed as teacher in Union District the previous year and was later married, whereupon the validity of her contract was attacked for this and other reasons. The court upheld the validity of her contract and allowed her damages. Relative to her marriage the court held that "the marriage of a female teacher after being so appointed or elected by a board of education is not in itself good ground for revocation by such board of its action or the abrogation of its contract."

However, after a teacher enjoys tenure rights there is almost complete unanimity among the courts as to her right to marry at any time. In an Oregon case<sup>17</sup> a teacher on the permanent list, on her engagement by the board for the ensuing

<sup>12</sup> Public School District etc., v. Holson 252 Pac. 509.  
<sup>13</sup> Thompson v. Gibbs 37 S. W. 277.

<sup>14</sup> School District etc., v. Gautier 73 Pac. 954 (1903).

<sup>15</sup> Guilford School Township v. Roberts 62 N. E. 711.  
<sup>16</sup> Jameson v. Board of Education etc. 81 S. E. 1126.

<sup>17</sup> Richards v. District etc. 158 Pac. 482.

year on May 19, 1913, signed an acceptance form, containing a resolution that the marriage of women teachers should terminate their services. Upon her marriage on January 4, 1915, she was removed. The court held that the board had no power to dismiss a teacher for a cause that was not reasonable, and that marriage was not a reasonable cause for dismissal. This decision follows closely the well-known New York case, *Murphy v. Maxwell*.<sup>18</sup>

In Milwaukee a rule of the board requires a female teacher to give immediate notice of her marriage.<sup>19</sup> Elsie Dickerhoff was married in March, 1921, but failed to report her marriage until the end of the school term whereupon she was dismissed. The Wisconsin Supreme Court ruled that she was entitled to her position as a teacher in the public schools as held by her up to September 5, 1922, and that she was entitled to credit for teaching experience during the year of the suit, and to receive the amounts due her in full.

#### *Causes for Dismissal*

More than three-fourths of the states have very definite statutory provisions in regard to the dismissal of teachers. Among the causes listed are the following: (1) Immorality; (2) misconduct in office; (3) insubordination; (4) incompetency; (5) willful neglect of duty; (6) cruelty; (7) partiality; (8) seditious or treasonable utterances; (9) intemperance; and (10) where the best interests of the school may require it. The reasons most frequently listed are incompetency and willful neglect of duty.

Boards of education are given considerable discretion in the application of these causes, but in most cases they are required to give notice to the teacher and permit a hearing before the entire board at a regularly called meeting. The burden of proof is upon the board and they must show cause for the dismissal. The teacher has a right to be heard in her defense and the board in session as a quasi judicial body must consider the evidence submitted. The right of appeal to the county or state educational officer, or to the courts is allowed. If the board has applied the provisions of the law in a reasonable regular manner and on good evidence, their decision is usually sustained.

Several states have no statutory provisions concerning the dismissal of teachers. In such cases the courts have ruled that the right to dismiss is implied in the right to employ teachers.<sup>20</sup>

<sup>18</sup> People ex rel. *Murphy v. Maxwell*, Supt. of Schools, 69 N. E. 1092.  
<sup>19</sup> State ex rel. *Thompson v. Board of School Directors* 179 Wis. 284.  
<sup>20</sup> *Wallace v. Sch. District, etc.* 69 N. W. 772; *Tadlock v. Sch. District*, 199 Pacific 1007.

Several of the states have tenure laws which are state-wide in their application; namely, New Jersey, California, Indiana, Montana, and the District of Columbia, and practically so in Maryland, Massachusetts, and New York. In a number of others the laws apply only to the larger cities and their adoption by the cities is often optional, or by charter provisions. There is much difference of opinion regarding the adoption of such tenure systems. Experts in school administration are inclined to oppose laws that make for life tenure, but are not hostile to the principle of greater permanency.

#### *The California Tenure Law*

The legislature of California during its last session enacted a state-wide tenure law the constitutionality of which was recently tested in the Supreme Court.<sup>21</sup> The plaintiff brought action to restrain the members of the board from attempting to deprive her of her position as a permanent teacher in the city of Wapa. The trial court declared the law unconstitutional for denying the right to employer and employee to contract for a definite specific period of time and an unjust discrimination against a class of schools and school teachers, and therefore not binding on the district.

Miss Grigsby appealed her case to the Supreme Court, which ruled that the tenure law was not discriminating class legislation and therefore constitutional. The powers possessed by the board were statutory and the statute restricting the school trustees' power applies only to an impersonal administrative agency, therefore constitutional guarantees of personal rights had no application.

The foregoing cases serve to emphasize the importance of great care in the wording of contracts and of their subsequent execution. The laws granting powers to boards of education will be strictly construed by the courts. At the same time the rights of private individuals will be closely observed and fully protected. If the wrong done the teacher may be righted by awarding damages a fair amount will be granted. If the wrong is so great that mere money damage will not suffice, an action restraining the board from committing the wrong will lie and in case of illegal dismissal a mandamus compelling reinstatement may be granted. A careful study of many of these cases shows that a closer consideration of the facts and a greater familiarity with the elementary principles of school law would have served well in saving the municipalities money and the individual parties much grief.

<sup>21</sup> *Grigsby v. King et al.* 260 Pac. 789.

# Training Pupils in Habits of Study

*The University of Michigan has carefully prepared a list of study-helps to assist high-school pupils in forming a successful method of studying*

BY PROF. J. B. EDMONSON, DIRECTOR OF DIVISION OF UNIVERSITY INSPECTION OF HIGH SCHOOLS, UNIVERSITY OF MICHIGAN

IT APPEARS to be easy to secure agreement among high-school principals that the neglect to train pupils in habits of study is entirely unwarranted, but it seems to be difficult to secure agreement as to the effective plans to follow in correcting the weakness. Numerous administrative schemes for insuring the training of pupils in habits of study have been proposed and at least a dozen of these have, according to Monroe,<sup>1</sup> been given a trial. Monroe declares, however, that we have not gone far in the solution of the problem.<sup>2</sup> He states: "Examination of the descriptions of the plans of supervised study reveals that practically nothing is said about instructional procedures that the teacher should use in directing the learning of students. The voluminous literature on supervised study deals mainly with administrative provisions designed to facilitate the stimulation and direction of learning. The writers appear to have assumed that, if a period was provided, teachers would be able to supervise study."

### No Definite Policy or Practice

In our inspection of high schools in the state of Michigan, we find that many schools are interested in the problem of improving the study habits of pupils. In spite of this interest, it is seldom that we find a school committed to any definite policy or practice in the matter of training its pupils in effective habits of work. Through our inspection we are, therefore, urging that every high school in Michigan adopt some definite plan. We hope eventually to require that every school on the accredited list of the University of Michigan shall have some definite plan for training pupils in study habits.

In order to help schools to set up a plan, we have prepared the following for a program for training pupils in habits of study.

*Step 1.* At the beginning of the year the principal or superintendent should give a talk to the pupils on the importance of acquiring efficient habits of study.

### Interest Must Be Aroused

This step is given first place because any plan will fail unless a desire is aroused on the part of pupils to acquire effective habits of work. The reason for this advice is well stated by Kornhauser<sup>3</sup> who declares, "There is one fundamental and indispensable requirement for effective study, more basic than any rules or technique. Without it, real study is impossible though everything else be favorable; with it, results can be achieved even in ignorance of all the fine points of how to study. This key requirement is a driving motive, an intense desire to learn and to achieve, an interest in things intellectual, a 'will to do' in your college work. If you would learn to study, first develop a feeling that you want to master your studies and that you will master them. All else is subordinate to that."

*Step 2.* On or before the time of the assembly talk to pupils, the principal or superintendent should discuss with the teachers the problem of training pupils in efficient habits of study. Teachers should examine one or more of the books in the field of study.

### Teachers Should Be Trained

The supervisor who assumes that his recent teachers do not need training in order to co-operate effectively in carrying out the program is making a very serious mistake. It is unfortunately true that few of our teachers have had any special training for this important kind of work. It is, therefore, imperative that Step 2 be a part of the program.

*Step 3.* A list of specific study-helps should be prepared by a committee of teachers and

<sup>1</sup> Monroe, *Directing Learning in the High School*, p. 408.  
<sup>2</sup> *Ibid.*, p. 413.

<sup>3</sup> Kornhauser, *How to Study*, p. 4.

### STUDY-HELPS FOR HIGH-SCHOOL PUPILS

*Arranged by Inspector J. B. Edmonson, University of Michigan, and Assistant Superintendent C. L. Goodrich, Department of Public Instruction*

1. *Be certain that you prepare the correct assignment in scope, content, and form.* Consider such questions as: What readings, problems, experiments, or topics were assigned? Was part or all of the preparation to be written? What dangers, difficulties, or important points were emphasized by the teacher in making the assignment? Which of these study-helps did the teacher urge pupils to follow?
2. *Have a study program.* Budget your time so as to have a definite time and a definite place to prepare each lesson.  
(The teacher will explain how to make a study program card.)
3. *Have proper study conditions and needed materials*—a quiet room not too warm, plenty of light at your left, a straight chair, a table, the necessary dictionaries, rulers, pencils, and other materials.
4. *Make careful preparation of advanced assignment* as soon as possible after a class, but allow time in your study program for review of essential points before going to class.
5. *Do your studying with vigor and determination.* Work while you work. When actually tired, change your work, take exercise, or go to sleep. One must be rested in order to study effectively.
6. *Learn to do two kinds of reading.* Read rapidly when seeking to find major points or to make a survey of a lesson. Read cautiously and critically such material as problems, directions, explanations, and any material that must be interpreted or mastered. Never read rapidly when you should read cautiously. Acquire the habit of analyzing confusing statements. To test the efficiency of your reading and to guard against "skimming" or "day dream-
- ing," pause at the end of paragraphs or natural units and seek to recall the gist of what you have read.
7. *Avoid acquiring the habit of half-mastery.* In committing material to memory learn it as a whole. Do not learn piece-meal. Keep going over the material until you have it letter perfect. In learning rules, forms, poems, dates, vocabularies, etc., it is helpful to repeat them aloud especially if you are expected to give them orally in class. (The teachers will explain the mistake of memorizing material that should be analyzed and understood.)
8. *Hunt for key words, phrases, or sentences; and master the full meaning of these.* Write them on a slip of paper for later review.
9. *Work independently.* Ask for help only after you have exhausted your own resources. Cultivate self-reliance, determination, and independence in work. Pride yourself on your ability to get your lesson done.
10. *Frame questions to test your preparation of a lesson* and use these questions to measure your preparation before going to class.
11. *Attempt to answer to yourself every question that is asked in class* and thus review, test, and drill yourself on essential facts. (Teachers will seek to conduct their classes so as to stimulate you to do this.)
12. *Strive to excel. Do not be contented to "get by."* Convince yourself of the genuine value of doing your best work in each of your studies. Be honest in all work. Be able to answer such a question as: Why is the subject worth studying? (Your teachers will seek to emphasize the invaluable character of the information or training in each study.)

adopted by the teaching staff, or use made of the study-helps issued by the Michigan Education Association.

We have prepared a set of *Study-Helps for High-School Pupils* and have arranged for their sale at cost through the Michigan Education Association (Lansing). We have not copyrighted this material and schools have been informed

that they may freely reprint these study-helps.

These study-helps are based on the contributions of authorities and writers in the field of the psychology of learning. The rules do not, therefore, represent any original contributions of the authors. Some recent writers have very vigorously attacked the contents of certain of the sets of study-helps for high-school pupils, and

have pointed out that the giving of rules to pupils will accomplish little. I find that Monroe<sup>4</sup> declares that study-helps are certainly a "far cry" from the elaborate plans for the immediate direction of study called for in other schemes. I fully agree with the criticisms of certain of the sets of study-helps. It is a mistake to assume that pupils will be able to take a set of rules and apply them efficiently without real assistance from the teacher.

#### *The Teacher's Responsibility*

In the set of study-helps that has been prepared for Michigan schools, special care has been taken to emphasize the responsibility of the teacher in the training of pupils. This is well illustrated in the first one of the study-helps, where questions are included to define the responsibility of the teacher in the making of an assignment. Again the responsibility of the teacher is emphasized in the second item relating to a study program where the statement is included, "The teacher will explain how to make a study program card." In other paragraphs you will find similar reference to the responsibility of the teacher.

*Step 4.* Printed copies of the study-helps should be distributed to the pupils through their classroom teachers and the pupils directed to paste a copy in each of their textbooks for ready reference.

This is a very necessary step in order to insure the united efforts of all teachers. The problem is one that requires co-operative work on the part of all teachers. Unless Step 4 is observed, a few of the teachers in a school will become the "trainers" of pupils, while the others will continue to be the "testers" of preparation. If pupils are to be effectively trained, all of the teachers must be both "trainers" and "testers."

*Step 5.* The teachers should be directed to take at least ten minutes of each recitation at frequent intervals to teach the pupils how to apply the different study suggestions to the subjects they are studying.

#### *Instruction as to Use*

The distribution of study-helps to pupils will accomplish very little unless the teachers observe Step 5. Whipple<sup>5</sup> has stated the reason for this step when he says, "To bring these rules to the attention of high-school pupils or college students and have them understand them is, accordingly, not difficult. But to have them apply the rules to the actual process of studying a given

subject is quite another thing. Furthermore, to apply a rule correctly to the actual studying of a subject under the direction and guidance of the teacher is one thing, and to use the same rule daily, without being directed to do so, is quite another thing. In other words, it is comparatively easy to acquaint pupils with the rules for effective studying; it is comparatively difficult to develop habits of effective studying. It is every teacher's business to go on from this point, to see to it that the rules are applied in the work going on under his direction; it is the teacher's business, to use the familiar phrase of the Great War, to 'consolidate the gains,' once the pupils have made them."

*Step 6.* Teachers should be encouraged to devise special sets of suggestions to be used by pupils in the study of particular subjects, e.g. algebra, Latin.

It is needless to argue the necessity of Step 6. While it is true that certain rules of study are equally applicable to all subjects, nevertheless, the fact remains that pupils need different directions for work in Latin than they need for work in some field of English or mathematics. Teachers will find specific suggestions for different subjects in a recent bulletin by Teuton.<sup>6</sup>

#### *Aids Determination of Failure Causes*

*Step 7.* Teachers should use the study-helps as a guide in seeking the causes for the failure of individual pupils.

I know of no more effective way to arouse in teachers a desire to discover the real difficulties of pupils than to insist upon Step 7. It is also an excellent way for a teacher to measure the effectiveness of his own instruction in teaching the habits of study.

*Step 8.* A copy of the study-helps should be mailed to the parents of each pupil with a letter urging co-operation in carrying out rules 2, 3, 5, and 9 of the Michigan set.

I do not mean to convey the idea, by proposing Step 8, that parents should be held responsible for training pupils in effective habits of study. It must be apparent, however, that certain of the items in the study-helps cannot be observed without active co-operation of the school and the home. The necessity for encouraging parents to create more favorable conditions at home for study is very effectively set forth in the accompanying stanzas by Edgar A. Guest, entitled *Temptations of Youth*.

*Step 9.* A copy of the study-helps should be printed in the local newspaper with some explanation of the importance of the problem.

<sup>4</sup> Monroe, *Directing Learning in the High School*, p. 413.

<sup>5</sup> Whipple, *How to Study Effectively* (rev. ed.), p. 9.

<sup>6</sup> Teuton, *Suggestions for Effective Study in Secondary Schools*.

In view of the fact that many people believe that the high school is neglecting to train its pupils in effective habits of work, I would strongly recommend that some attention be given to acquainting the public with efforts made to improve the quality of training in habits of study. I think

#### TEMPTATIONS OF YOUTH

Now wandering with Caesar through the various fields of Gaul  
 And fighting with the Romans doesn't interest him at all,  
 For who would follow Caesar in some ancient tame affair  
 When the Tunney-Dempsey prize fight is being shouted on the air?  
 They give the youngster homework as one time they gave it me—  
 He's supposed to find the value of  $3x$  plus  $2yz$ .  
 But an algebraic problem is a trifle stale and flat  
 When Alexander's pitching and Babe Ruth is at the bat.  
 I may tell him that I studied through the winter evenings long,  
 That I proved my tough examples till I knew that none was wrong;  
 But when I was reading Caesar by the lamplight's mellow glow,  
 The room was always quiet, for we had no radio.  
 Now the nights are filled with music, and the air is full of song,  
 There's a prize fight in the parlor. You can hear the ringside gong,  
 You can hear the crowds applauding as the battle is begun,  
 And I wonder that a youngster ever gets his homework done.

Copyright 1927 by Edgar A. Guest.

there is a further reason for printing the study helps in the local paper, which is to be found in the desire that many people possess, outside of school, to improve their own habits of study.

*Step 10.* Teachers should at frequent intervals be required to take stock of the progress made.

This last step is proposed because it is extremely important to encourage teachers to take an experimental point of view towards the problem of training pupils in habits of study. It is highly desirable to cause them to feel that the problem is not one that lends itself to an easy solution. It is, therefore, a problem on which all

classroom teachers may make some valuable contribution. It is, in my opinion, a mistake to introduce any plan for training pupils in habits of study in such a way as to suggest to teachers that the proposed plan is a "cure all," and that if it fails the teachers are to blame. If Step 10 is followed, teachers will be called upon from time to time to pool their opinions and their findings relative to the changes that have been taking place in the study habits of the pupils. Such an invoice of results is quite certain to reveal some elements of strength and other elements of weakness in the program that has been set up in the school.

#### Specific Program Is Needed

The question may be raised by some—"Do we need a program for a given school or may we safely leave this problem to the individual teachers?" It is my own observation that a specific program is needed. I have also found in my inspection of schools that in those schools where the problem is left to the teachers, only a minority of the teachers were giving attention to the problem. Many of them are not prepared to work out procedures of their own for the training of pupils in habits of study. Other teachers will say as one of the teachers of my own state said recently, "I am so busy trying to cover the outline of my course that I do not have the time to train pupils in habits of study." In turn, there are many habits of study that can only be developed and strengthened through united emphasis on the part of all the teachers.

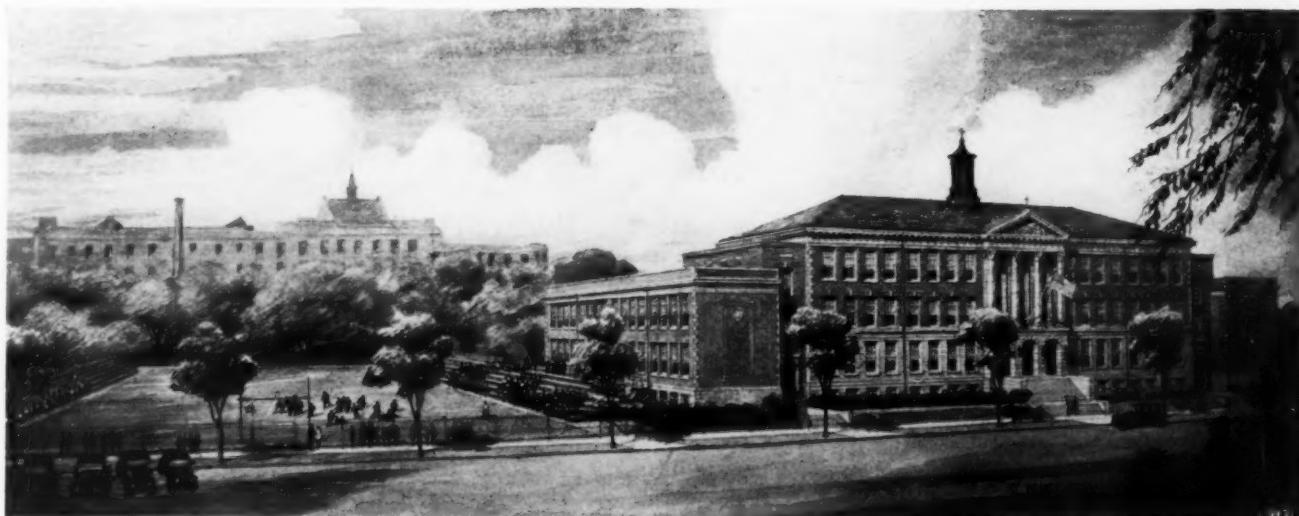
#### Available Material Aids Progress

In view of the helpful material now available in books and bulletins, there is little excuse for a school failing to work out a plan for training pupils in habits of study. The plan outlined in the foregoing paragraphs may be followed with modifications, or a school may develop an entirely different procedure. What appears to be needed, however, is a more decided conviction on the part of principals that it is part of their responsibility to insure that teachers train their pupils in effective habits of work.

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# Solving Ventilation Problems in a Parochial High School



*A dual system of control has permitted the St. George High School to maintain inside air conditions as fresh and wholesome as out-door air*

BY BROTHER J. ELZEAR, DIRECTOR, ST. GEORGE HIGH SCHOOL, EVANSTON, ILL.

**S**T. GEORGE HIGH SCHOOL of Evanston Ill., is one of the most modern of the recent Catholic high schools erected in the Archdiocese of Chicago. It is a three-story structure, containing thirty classrooms and various special activity-rooms, and has accommodations for one thousand pupils. The cost per pupil of \$1,000 for a school of this type is moderate, and the cost per cubic foot of \$0.50 is economical considering such provisions as 3,000 square feet of floor space in the library, 4,500 square feet in the cafeteria, and 9,000 square feet in the gymnasium.

#### *Adequate Heating and Ventilation*

The outstanding feature of this parochial school is the careful attention that has been given to the provision for adequate heating and ventilation. Only recently have there been any definite rulings among public health groups as to what type of ventilation is to be accepted as standard and the plans for the St. George High School have followed these specifications.

The development of a ventilating system that is capable of maintaining inside air conditions as fresh and wholesome as out-door air is the

result of this consideration of ventilating and heating problems. And these correct air conditions are necessitated by the extensive program of indoor athletic activities sponsored by the school authorities.

#### *Extensive Indoor Physical Program*

Realizing that a boy's needs are not limited to out-door or indoor recreation alone, a complete schedule of physical activity has been arranged to utilize the school's gymnasium, running track, swimming pool, and apparatus. Not only during the school sessions, but on Saturdays, holidays, and evenings group and individual activities of a physical nature are carried on within the school. Thus, it may be readily seen that an adequate ventilating system is needed, since the facilities are in almost constant use.

Classroom air may be provided on a literal out-door basis by means of adjustable windows that are installed throughout the school building to permit open windows without creating a draft. The mechanical ventilation equipment is arranged for control in separate units so that the free use of windows in one part of the building will not affect other units. This would be a severe handi-



*The kitchen is ventilated by a separate unit.*

cap in a building where the kitchen, the gymnasium, the swimming pool, the lockers, and the showers must depend to a great extent on mechanical ventilation.

The air that is forced into the showers and natatorium is de-humidified and briskly circulated so that excess moisture is not a problem, and no dead air spaces harbor odors or other unfavorable effluvia.

The ventilating system is in two separate units: System 1, with five separate units of control, which takes care of the air supply to all rooms; and system E, with three control units, which is concerned with forced exhaust systems in the swimming pool room, kitchen, cafeteria, chemical laboratory, and classrooms. The detailed loads are as follows:

#### *Air Distribution in Gymnasium*

System 1-1—provides forced air to the gymnasium, locker rooms, and shower rooms, and provides tempered and filtered air by means of outlets located in the ceilings of the shower and locker rooms, and in the steel roof trusses of the



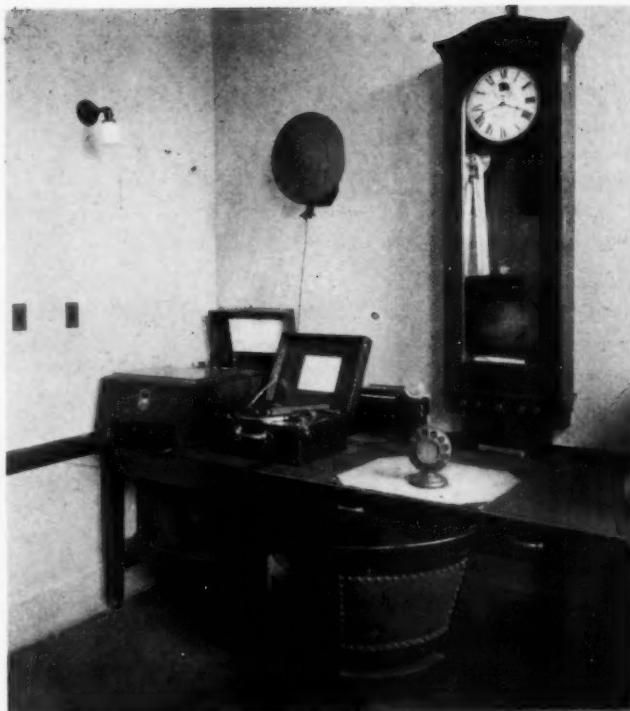
*Four hundred pupils may be served in the airy, well-lighted cafeteria.*

gymnasium. This particular method allows a great amount of air to be distributed at a high velocity, the distance from the outlet to the floor permitting the velocity to be dissipated before it reaches the pupils at exercise or at play. A high efficiency is thus obtained without prevailing drafts.

#### *System Equipment*

The equipment for this system includes a fan propelled by a  $7\frac{1}{2}$  horse power, 60 cycle, three phase motor, with a capacity of 13,200 cubic feet of air per minute. The air conditioner and fan are located in the sub-basement with the air intake through the wall from the stairway leading to the sub-basement. This, as well as all the other ventilating units, is operated under automatic control. This unit maintains a constant temperature of air delivered from the fan, adjustable between 60 degrees and 70 degrees F. A separate thermostatic control for this unit is located in the swimming pool room as are the controls for all other units.

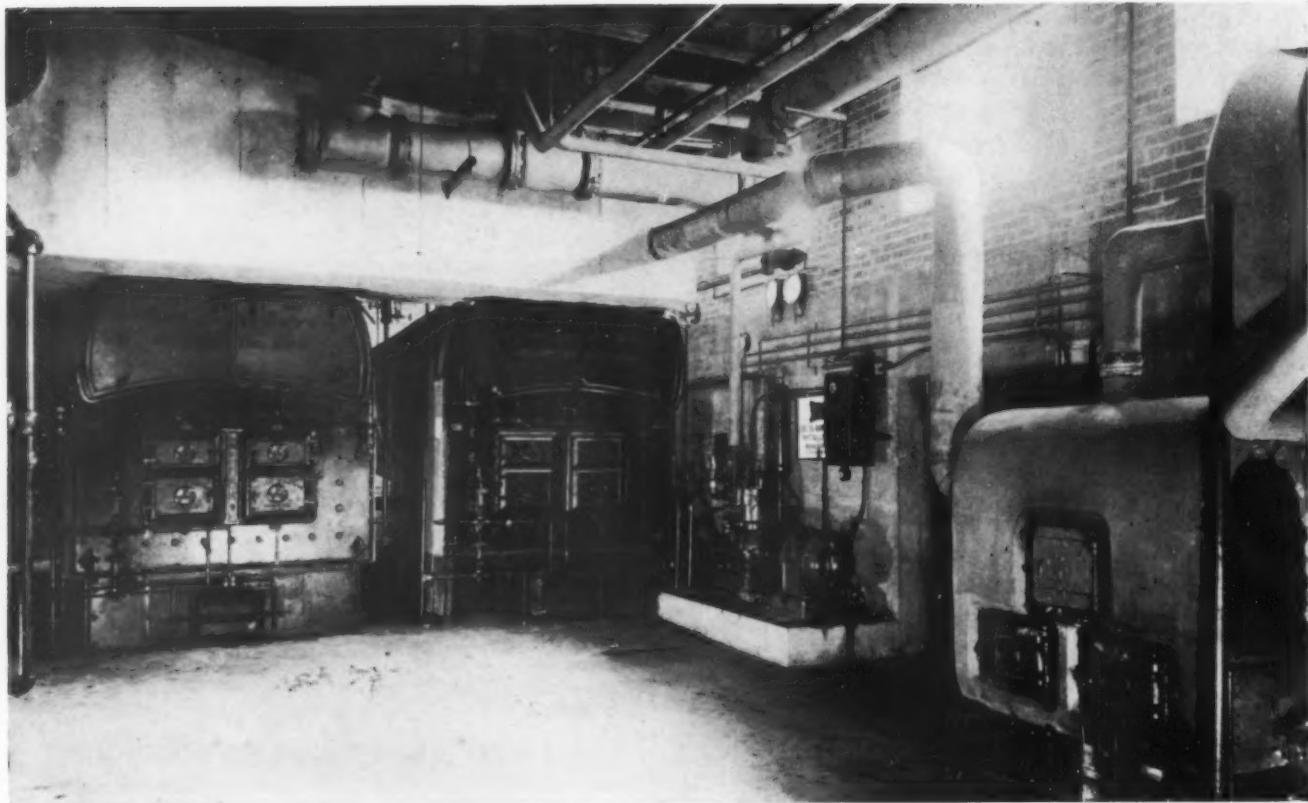
Systems 1-2 and 1-3 are classroom supply units



*The public address system in the director's office.*



*Individual hoods are provided for each desk in the chemistry laboratory.*



*An oil-burning system with full automatic control obviates the necessity of constant attention.*

to the south and north portions of the buildings respectively, with the fan, motor, and air conditioning apparatus located in the northwest and southeast corners of the basement respectively. These units supply filtered and tempered air at the rate of thirty cubic feet per minute per pupil. These units are used for ventilation only as the classrooms are heated by direct radiation, vacuum system. Gravity ducts for forced exhaust extend to the attic space and reach the outside atmosphere by means of louvered, automatically controlled ventilators that preserve an even flow of air.

Each of these systems is equipped with a fan and 10 horse power motor, one capable of delivering 16,600 cubic feet of air per minute and the other delivering 17,300 cubic feet of air per minute. Air intakes are through the wall of the basement, while distributing mains are in the ceiling of the corridors of each system, and branch connections are at register faces close to the ceilings of the several rooms.

#### *Swimming Pool Room Ventilation*

Systems 1-4 and 1-5 constitute the two gravity fresh air supply units that supply air to the swimming pool room. The air comes through the heating unit into large ducts and risers located in the side walls of the rooms. This system is made operative by means of a large air exhaust fan

operated as a part of System E-1, drawing air through the registers in the east wall of the swimming pool room. This gives a most uniform air supply in this room under conditions that usually require special effort to control satisfactorily. The exhaust fan and motor are located in the sub-basement, while discharge is effected through the wall into an areaway. The equipment includes a fan with a 5 horse power motor having a capacity of 10,960 cubic feet of air per minute.

#### *Forced Exhaust in Kitchen Unit*

System E-2 operates the forced exhaust for the kitchen unit. The fan is directly connected to a 1½ horse power motor and exhausts 3,000 cubic feet of air per minute through collecting ducts, discharge duct, and exhaust hood through the roof. Direction connection is made to the kitchen range. The ventilation unit is mounted on a suspended platform. Register spaces are placed in the wall between the kitchen and cafeteria and the air required by the fan to ventilate the kitchen is taken out of the cafeteria by means of these openings. There is also a large supply unit for the cafeteria, and the unit as a whole gives a most uniform distribution of air and a pleasant atmosphere in the cafeteria.

System E-3 provides gravity exhaust from classrooms and other ventilated rooms throughout, except in the swimming pool room and the

kitchen. The equipment includes registers and collecting ducts of two trunk risers, each with a system of mains in the basement, and first and second story ceilings, and with branches from each main to registers in various rooms. Collecting ducts finally discharge through a louvered tower on the roof.

#### *Individual Hoods for Laboratory*

The chemistry unit merits special attention inasmuch as the air exhausts at each of the thirty-two individual desks provide an efficient degree of protection against poisonous fumes. The research laboratory for the chemistry teacher, which adjoins this room, is similarly protected.

Automatic heat control is adjustable between 60 degrees and 70 degrees F. in systems 1-1, 1-2, and 1-3, while units 1-4 and 1-5 are adjustable between 70 degrees and 80 degrees F.

The air filters are set up in sections, with each unit carrying two extra cells and a tank for washing and a tank for charging cells. The air filter and tempering heater are suitably housed in twelve-gauge galvanized iron, appropriately re-

inforced with angle iron for the sake of safety.

The low pressure heating system is operated by vacuum system and direct radiation is supplied to the rooms at a pressure not exceeding one pound at the boiler. Two boilers of the firebox type are used, with a load rating of 20,000 square feet of radiation. Each boiler has 1,711 square feet of heating surface and 39.6 square feet of grate area. The vacuum return system is maintained by two duplex vacuum feed pumps.

#### *Three Systems of Radiation Supply*

There are three separate systems of radiation supply: (1) One on the sub-basement ceiling with submains to supply all direct radiation except in the north wing; (2) one to supply direct radiation to the east half of the north wing; and (3) one to supply direct radiation to the west half of the north wing.

The blast heaters and the water heater for the swimming pool room are supplied by a system of mains separate from those for general heating, with a trunk return for one blast heater underground. This trunk return is placed in tile.



*The biology laboratory is well-equipped with models and precision apparatus.*

The heating plant is equipped with an oil burning system that consists of electrically driven air compressors and oil pumps. The burners are of the flat flame, external atomizing type, and the fan shaped flame that spans the entire width of the boiler is fed by oil and air under pressure. Secondary air for combustion, which is admitted through ports beneath the burner, is preheated, and a fine adjustment of automatic controls obviates the necessity of constant attention. Pre-heating of the air and oil fed to the burners is governed by the gravity and viscosity of the fuel oil used.

#### *Provide Constant, Even Temperature*

Radiators in the basement rooms are of the cast iron wall type, suspended at the ceiling. Other radiation is of the cast iron sectional legless type, tapped top and bottom at opposite ends for vacuum system. All radiation above the basement is carried on wall brackets above the floor, and all radiator traps are of the thermostatic type. The water and blast heater traps also carry a venting by-pass trap permitting thermostatic control.

The net result of this dual system is a constant, even temperature, a continuous admission of filtered, tempered outside air, and atmospheric change without draft. The mechanism automatically holds conditions that are considered to be optimal for health.

St. George High School has other outstanding features in addition to its heating and ventilating systems. A public address system that is connected to every room in the building provides quick and easy communication for the director, as well as permitting all pupils to hear musical programs, addresses, and lectures either "on the air" or in the school assembly rooms without making it necessary to quit the individual classrooms.

#### *Cafeteria Has Fixed Seating*

The cafeteria has a fixed system of seating wherein the benches and tables are in one unit, and fastened to the floor. This obviates the noise usually accompanying scraping chairs and allows easy cleaning of the composition floorings.

The school was opened September 12, 1927, to freshmen classes only, but a four-year course is contemplated, and it is expected that the majority of pupils entering will be for the full four years of training. The St. George High School is fully accredited as a college preparatory unit and even the business courses are sufficiently broadened to enable the pupils to obtain full college entrance credits.

### Methods of Safety Education in Worcester Schools

"Safety was introduced into the Worcester, Mass., schools through an experimental or laboratory school during the spring of 1926. After the teachers had spent several months organizing, selecting, and compiling material, parents, members of the executive committee of the Worcester Safety Council, city officials, and citizens were invited to witness such demonstrations. The work was altogether praiseworthy and contributed towards educating the public for safety," according to Thomas F. Powers, Assistant Superintendent of Schools, Worcester.

"Another practical means of arousing the public to keener consciousness of danger and to safe habits is to present to the public a demonstration of the work done in the schools. This was done in Worcester during the spring of 1927. The several thousand citizens who saw the display in the Chamber of Commerce Building were very favorably impressed with the attempts to develop safety practices in the children. Psychologically, it is evident that a display of posters, graphs in arithmetic, hand work, compositions, penmanship exercises and evidences of work done in all other subjects from kindergarten through grade eight would make the public, generally, stop, reflect, and conclude favorably.

#### *Public Is Educated Through Children*

"It may be rather challenging to say that education of the public can best be accomplished through the children," he stated. "This is not the only reason why education for safety should be in the schools. One who has studied the causes of accidents and analyzed the material used to offset those causes must admit that this material is proper educational matter. Ignorance of conditions, or facts, improper attitudes of mind, improper physical habits, dangerous personal tendencies, lack of control, irresponsibility, and such have been the causes of thousands of accidents. In offsetting these causes, the material used is educational. On the face of things, supplying information, forming correct habits of body, correcting improper habits, forming correct attitudes of mind, correcting faulty attitudes of mind, developing control—all have been, for ages, proper educational material."

"It is my opinion that the slaughter of humanity and wastage of physical property, which have become so absorbingly a part of our economic organization, must be offset in part by teachers. Modern conditions of life have made this demand upon our schools."

# Moral Education—A Neglected Duty in the Upper Grades

*As all ethical ideals were not assured of securing proper emphasis through incidental treatment only, definite units of materials were provided to gain such emphasis*

BY RALL J. GRIGSBY, PRINCIPAL, AMOS HIATT JUNIOR HIGH SCHOOL, DES MOINES, IOWA

YESTERDAY I went into a seventh grade classroom in geography. The class had been studying about the products of Russia. One youngster rose to tell the class that "ninety-five per cent of the world's supply of platinum comes from Russia." The teacher then sought by questioning to bring out some of the uses of platinum that made it commercially valuable. Several pupils mentioned its vogue as a precious metal for jewelry making. At this point the teacher's eye fell upon my Waldemar chain, and she asked whether it might be exhibited as showing one use of platinum in jewelry making.

As the Waldemar chain was being passed around the class, one boy raised his hand and suggested doubt as to whether or not it was really platinum, since he said he had recently examined some chains in the "dime store" which looked quite similar. Thus appealed to, I countered by asking how one might really tell whether or not it was platinum. All agreed that they could not tell the difference between real platinum and German silver or nickel finish. "How then," I asked, "when I go into the jewelry store to purchase myself a platinum Waldemar chain may I feel confident that the article I purchase is actually platinum and not a cheap imitation?"

## *Confidence and Trustworthiness*

From this point further questions and discussion developed the topic of the role of "confidence" in business, and the conclusion that trust or confidence was based upon a continuous record for square-dealing or trustworthiness.

The application of the trait of trustworthiness to the present school life of pupils was then brought out by skillful questions as to just what John (who has a reputation for trustworthiness) would do in certain common temptation situations. It developed that John was never truant, he conscientiously prepared his lessons, he could be relied upon to carry messages from the school to his parents, to return his report card promptly,

As the period ended several interested youngsters volunteered to bring to class reports of the lives of Lincoln, Grant, Marshall Field, and others who have achieved distinction because of their trustworthiness. One Boy Scout in the class undertook to explain the scout law of trustworthiness and what it really meant to a scout.

In short, I left the classroom with a real glow of enthusiasm for the fine lesson in character education I had witnessed. Please note that this was direct moral instruction, in that attention focused upon the discussion of the character trait of trustworthiness. It was incidental only in that it hadn't been included in the course of study for this particular class at this particular time. It depended, therefore, upon the insight and the interest in character values of this teacher to catch this opportunity to build up the ideal of trustworthiness.

## *The Element of Weakness*

Let me point out that this is the very element of weakness of the incidental catch-as-catch-can school of character educationists. For teachers generally are not to be depended upon to catch the opportunities that offer, or to recognize them as opportunities when they come; moreover they vary widely in their ability to extemporize upon moral themes.

Let me revert to the illustration above given. As a matter of fact this is a true report of a classroom visit up to the point of the introduction of the question of how one might tell platinum from its cheaper imitations. The rest of the moral discussion occurred only in my imagination. Now why did it occur to me and not to the teacher? I would suggest two reasons: First, I had been thinking about character education values when the teacher had been thinking of subject matter, course of study values; second, I had no sense of being pushed for time in covering a course of study as did she, perhaps.

Now for a second example. The other day a

boy came into my office at the lunch hour saying that he had lost his lunch and asking if I would loan him fifteen cents for lunch until the next day. I loaned him the money, accepted his I. O. U. slip, and his promise of payment on the morrow. Two days passed and I noted that the amount had not been repaid. So I called him to the office and suggested that he had forgotten something rather important. He accepted the excuse, thus suggested, *i.e.* that he had a poor memory, and promised to bring the money next day. Several days later I called him to the office again and succeeded in extracting the fifteen cents. Now would you believe that it was hardly two weeks before he again appeared before me at the lunch hour and requested a second extension of credit. I refused him the loan however, taking care to point out to him that one's financial credit is based upon his record of performance of promises made—on confidence of the lender in the borrower; and that his performance in the case of his last loan was such as to ruin his financial credit with me.

Now this, too, was direct moral instruction. It, too, was incidental in that sense that it was not a part of the regularly organized curriculum. It differed from the first example in that it was individual instruction rather than group instruction; and that it was given in the presence of an actual situation rather than a hypothetical situation.

#### *Direct Moral Instruction*

Now, for a third example, consider the case of the school in which an assembly was held in advance of the crucial football game of the year. The various pep speakers had done their bit, the cheer leaders had performed their accustomed contortions, and the principal arose to make some closing remarks. He called attention to the fact that this was to be the last and deciding game for the season; that the visiting team and their accompanying rooters were to be considered as guests; that the bleachers had a responsibility in the matter of sportsmanship as great as had the players. He even proceeded to enumerate the specific things that meant good sportsmanship for the spectators: Cheering for an injured opponent, quiet when the opposing team was calling signals near the home team's stands, etc.

This, too, was direct moral instruction; it differed from the second example in that it was group instruction, rather than individual instruction; in that it was given in advance of an actual conduct situation.

Now for a fourth example of direct moral instruction. In a certain school it was decided that

incidental treatment of moral themes, important as it was, did not assure that all the major ethical ideals would secure proper emphasis. Accordingly, it was decided to organize the teaching of citizenship about the major ethical ideals. Definite units of materials were provided for the use of teachers and pupils; a definite allotment of time was made for the work and the schedule adhered to rigidly.

#### *An Example of Moral Education*

The method was that of discussion by the class group under the guidance of the teacher—a procedure familiar to every teacher of social science. From the instructions in the book provided the teachers for class work, the following material on honesty (truthfulness) was taken.

#### HONESTY (TRUTHFULNESS)

The young child believes implicitly in the veracity of his parents. "It's so because mother says it's so," frequently says the little toddler. Outside of the home, however, the child soon discovers that his confidence must be placed with care. Not everyone is to be trusted as is father or mother. Even Santa Claus later proves to have been an innocent hoax.

Confidence, the cornerstone of our social structure, is based upon our experience of honest dealings in the past. Children may be led to value a record of integrity, of honor held sacred, of promises kept. Only thus may we be assured of a nation that looks upon treaties as more than "mere scraps of paper."

Of all the forms of dishonesty with which teachers must deal, untruthfulness claims their earliest attention. It is evident to anyone who will analyze the falsehoods of children that they are told from a variety of motives. There is the conventional falsehood, whose motive is to protect the feelings of others against hurt. Sometimes the motive is to gain some advantage for oneself; or the fear of the consequences of wrongdoing; and sometimes, though seldom, the desire to inflict pain.

This chapter emphasizes the following points:

1. Truthfulness is honesty of speech.
2. "White lies" (telling facts for the purpose of creating false impressions) are despicable lies.
3. Conventional and social lies (to make another happy or prevent hurt to another), while having the sanction of many adults are not to be confused with antisocial lies (lies to escape punishment, gain selfish advantage, or to direct hurt to another).
4. One untruth usually calls for another.
5. Loyalty to truth should rank above loyalty to friends.

1. "Don't stop to play on the way home from school to-day," called Ethel's mother after her. "I will need you at home to help me."

At dismissal the teacher asked Ethel to remain for a few minutes after school to help mount some pictures for the room. Later, as she was leaving the schoolhouse, she stopped a moment to watch some of her friends who were still playing upon the grounds. They persuaded her to join them. As a result, she reached home too late to help her mother.

"I'm sorry that I'm late," said Ethel to her mother. "I had to stay after school to help teacher mount some pictures for our room."

- a. Did Ethel tell her mother the truth? Why?
- b. Why did she fail to tell her mother all the facts?
- c. Is it truthful to withhold part of the facts and thereby create a false impression?

#### *A Social Lie*

2. Mary's mother was upstairs sewing when a book agent knocked at the door. Mary answered the door. She knew her mother did not wish to be disturbed in her sewing, and yet she hesitated to seem unkind to the agent by telling him that her mother didn't want to see him. So she said, "Mother isn't here."

- a. Did Mary tell a falsehood? Why?
- b. Did she do the right thing in shielding her mother from interruption?
- c. What else might she have done?
- d. What is the difference between Mary's motive and that of Ethel in the incident above?

3. One day John and Paul played truant together. The school nurse happened to call John's home in the afternoon and discovered that John's mother was unaware of his absence. Next day the principal of the school asked John if anyone else had been truant with him. "No, sir," said John, "I went alone."

- a. Is truancy a form of dishonesty? Why?
- b. Why do you think John told a lie to the principal?
- c. Is it more important to be loyal to a friend than to be truthful?
- d. How might John have protected his friend, Paul, without telling a falsehood?

4. Vera and her parents had driven to a nearby town over the week end. Upon their journey home a man stopped her father to ask him the condition of the road. Scarcely had they started again, when the rear tire blew out, and had to be changed. Thus delayed, they reached home shortly after dusk.

The next day at school Vera entertained her friends with the following account of the excur-

sion: "And we had the most exciting time coming home. Two men stopped father and wouldn't let him go until he had given them some important information. And we had to change a couple of tires. We didn't get home until almost midnight."

a. Was this story a lie? Why did Vera tell it? Did it do anybody any harm? Why?

b. What do we mean by "fish stories?"

5. Edgar had hurt his foot. He did not want to tell his mother for fear that it might upset her, and cause her to worry. When his mother said to him, "Edgar, why are you looking so pale?" he answered, "I haven't any idea why I should look pale. Nothing is the matter."

a. Why did Edgar tell this falsehood?

b. Was he justified in his desire to save his mother worry?

c. How does this falsehood compare with Paul's in the next story?

6. Paul's class was writing a history playlet. The teacher asked him to bring one of his books to school which he had said contained suggestions for the production of amateur plays. Paul had promised to bring the book the very next day, but forgot to do so. When the teacher asked him before the class next day whether he had brought the book, he said, "No, I loaned it to John last week. He promised to bring it to-day but he is absent."

a. Why did Paul tell this lie?

b. Did he hurt John's reputation for reliability in saving his own? Does it make any difference whether he intended to hurt John or not?

c. Do you like people whose word you know you can rely upon?

d. How do you feel toward someone who you know occasionally lies to "get by?"

#### *Keeping Promises*

7. John borrowed a quarter from Peter saying, "I'll pay you back next Monday." Next Monday came and Peter had forgotten all about the loan. John neglected to pay him, saying, "Oh, well, if he doesn't remember it, he'll never miss it."

a. Should one fail to keep his promises even though another forgets he has made them?

b. Is it dishonest to fail to keep your promises if you can?

c. Would it have made any difference had John borrowed a book instead of money?

d. Ought one to make promises that he doubts whether he can keep?

8. Mary was poor in arithmetic. She sat next to Ruth in class. One day during an examination she copied from Ruth's paper. The teacher saw her copying and called her to the desk. "Mary,

were you copying from Ruth's paper?" she asked.  
"Yes, ma'am," answered Mary.

a. Do you think you could trust Mary not to cheat in an examination if the teacher were called out of the room? Why?

b. Is copying another's examination paper dishonest? Why?

c. Are truthfulness and honesty the same thing?

d. Was Mary truthful? Was she honest? Why do you think Mary told the teacher she was copying?

e. What is the difference between an honest man and an honorable man?

9. Edith was having a "fuss" with her friend, Mary. "I think you're just impossible," she said to Mary. "You're coarse and loud on the street; your clothes look like a mess; and besides I can't believe a word you say."

a. Suppose all that Edith said to Mary were true, should Edith have said it? Why?

b. What is the meaning of "candor," "frankness," "boorishness?"

c. Is it sometimes better to be courteous than to be frank? Give examples.

#### *The Autocrat of the Breakfast Table*

10. "When we are yet children, there comes up to us a youthful angel, holding in his right hand cubes like dice, and in his left spheres like marbles. The cubes are of stainless ivory and on each is written in letters of gold, TRUTH. The spheres are veined and streaked and spotted beneath, with a dark crimson flush above, where the light falls on them, and in certain aspect you can make out upon every one of them the three letters, L I E. The child to whom they are offered very probably clutches at both. The spheres are the most convenient things in the world; they roll with the least possible impulse just where the child would have them. The cubes will not roll at all; they have a great talent for standing still, and always keep right side up. But very soon the child learns that things that roll so easily are very apt to roll into the wrong corner, and to get out of his way when he most wants them, while he always knows where to find the others which stay where they are left. Thus we learn to drop the streaked and speckled globes of falsehood and to hold fast the white angular blocks of truth. But then comes Timidity and after her Goodnature, and last of all Polite Behaviour, all insisting that truth must roll, or nobody can do anything with it; and so the first with her coarse rasp, and the second with her broad file, and the third with her silken cleeve, do so round off and smooth off and polish off the

now white cubes of truth, that when they have got a little dingy by use, it becomes hard to tell them from the rolling spheres of falsehood."—From *The Autocrat of the Breakfast Table*—O. W. Holmes.

11. "It was the day of the annual baseball game between Prescott and Cole. Everybody in the immense crowd around the diamond knew that the man in Kingsley's uniform was 'the new chap from the mountains who saved the boy's life.'

"The excitement began in the fourth inning, with the score tied and the adherents of each college standing on tiptoe to watch Cole's star baserunner trying to get in with the run that should place the visiting team ahead.

"This baserunner, whose name was Conner, had made a fine drive of the ball into deep center field for two bases, and was now playing far off, in a desperate attempt to 'steal' third. There were two Cole men out in this inning, and one more would retire the side. A good batter was up, and Conner might score if he could get a long start from second base before the ball should be hit.

"The Prescott pitcher drew back his arm. Conner took a generous lead, and started madly for third base the moment the ball was pitched. Drayton ran to the bag, the catcher caught the ball and whisked it down to third and into Drayton's hands like a shot.

"Twenty feet from the bag, Conner took the only chance left him to reach there safely. He dropped face downward, gave a terrific plunge, and by the space of a hair slid under Drayton's hands as the latter whirled with the ball to touch him out.

#### *Safe or Out?*

"The crowd broke into a roar of conflicting cheers and clamors for the umpire's decision. The noise was so great that nobody could hear what it was. Was Conner safe or out?

"Drayton stood with the ball in his hand, looking at the umpire. Conner lay sprawled at full length on the ground one hand clutching the bag. The umpire waved his hand toward him.

"'You're out!'

"The words came to the ears of the crowd at last; instantly the roaring was redoubled, for now Prescott was cheering, while Cole was indignantly shouting its protest against the decision.

"'Safe! Safe! He's safe!' cried a thousand voices.

"'Play ball!' called the umpire, motioning for the Cole men to take the field. Prescott's men were walking in to their bench, counting the other

side out—all except Drayton. He still stood at his station. Conner still held the bag.

"Come in, Drayton," called Saunders, elation in his voice. "You made a good play there, old man."

"But you are mistaken," was the astonishing reply, while the crowd suddenly fell into a deep hush. "He isn't out. I didn't touch him."

The seven other players of Prescott, and most of those of the Cole team, started at the tall, freckle-faced youth in a daze of consternation, which quickly rumbled into a growl of disgust on the one side and surged into a yell of triumph on the other.

Saunders and all Prescott in unison rose up and denounced Drayton for the biggest dunce that had ever appeared on a Prescott diamond. They even insisted that his admission should pass as untechnical and out of order, on the ground that the umpire had already decided the play beyond recall before Drayton had spoken.

#### *The Decision Is Changed*

"But the umpire shook his head. He declared that the testimony of one of Prescott's own men was sufficient to change his decision, as it was obvious that the runner had reached the base safely if the opponent guarding the base said so.

"The score now stood: Cole, 2; Prescott, 1.

"So it remained to the last inning. Then something happened.

"Cole had had its turn at the bat and had failed to increase its lead. It was now Prescott's final chance to tie the score or win.

"Doyle came to the plate and struck out. Brown followed with a lucky hit over second, and reached first base in safety. By a hazardous slide he advanced a base a moment later. Saunders came up and went out on a slow grounder to shortstop. Drayton was the next man up. There were two out.

"At that moment Drayton made a hit. The ball left the bat with a sharp crack that somehow told those who heard it that it was to be a long, safe hit. When it landed, the center fielder was chasing it away into the corner of the field, and Brown was cantering home with the tally that tied the score!

"On around the bases, sped Drayton, now past first, now over second, now coming down to third with a speed that made the eyebrows of the college crack sprinter rise.

"Come home! Come home!" shouted the Prescott coaches and the Prescott audience, while the other Prescott players danced from their bench and threw their caps into the air.

"Would he be able to make it? The ball was

recovered around the third corner and started for the plate. Cole's second baseman caught and sent the ball whizzing across the diamond to the Cole catcher, who stood quivering to receive it and block the oncoming Drayton before he should reach the rubber plate.

"Down came the runner, slap came the ball into the catcher's big glove. It was a great and true throw from the Cole second baseman. But it was also a great slide that carried Drayton around behind his waiting foe and brought his outstretched hand to the plate a quarter of a second before the catcher could reach him with the ball!

"If there had been a pandemonium of noise from the crowd before, there was a bedlam now. The umpire had been unable to see Drayton touch the plate, owing to the cloud of dust raised by the slide, and was hesitating whether to call him out or safe. 'Safe' meant the game for Prescott. 'Out' meant that the score was merely tied.

"The crowd suddenly realized that the umpire was hesitating and fell silent.

"Did you touch the plate or not?" he asked sharply.

"I touched the plate," came the reply, with equal distinctness.

"And then the crowd knew in a flash that the game was won. Drayton would be believed.

"You are safe," said the umpire, and not one of the Cole nine dissented, while the Prescott contingent swept down with the cheers of victory thrilling across the field."—*Why Drayton Was Safe*—Carroll Corrington, Barnes 8, pp. 38-46.

#### *Washington and the Sorrel*

12. A story is told of Washington's boyhood. Augustine Washington had taken a great deal of pride in his blooded horses; and his wife afterward took pains to keep the stock pure. She had several young horses that had not yet been broken. One of them in particular, a sorrel, was extremely spirited; no one had been able to do anything with him; he was pronounced thoroughly vicious, as people are apt to judge horses that they have not learned to control. Determined to master this colt, George told his companions that if they would help, he would ride and tame the animal.

Early in the morning the boys set out for the pasture, where they managed to surround the sorrel and to put a bit into his mouth. Washington sprang upon its back, the boys dropped the bridle, and away flew the angry animal. His rider at once began to command; the horse resisted, backing about the field, rearing and plunging. The boys became thoroughly alarmed, but

Washington kept his seat, never once losing his self-control or his mastery of the colt. The struggle was a sharp one; when suddenly, as if determined to rid itself of its rider, the animal leaped into the air with a tremendous bound. It was his last. The violence burst a blood-vessel, and the noble horse fell dead.

Before the boys could recover sufficiently to consider how they might get themselves out of the scrape, they were called to breakfast; and the mistress of the house, knowing that they had been in the fields, began to ask after her stock.

"Pray, young gentlemen," said she, "have you seen my blooded colts in your rambles? I hope they are well taken care of. My favorite, I am told, is as large as his sire."

The boys looked at one another, and no one liked to speak. Of course, the mother repeated her question.

"The sorrel is dead, madam," said her son. "I killed him!"

And then George told the whole story. They say that his mother flushed with anger, as her son often used to do, and then, like him, controlled herself, and presently said quietly:

"It is well; while I regret the loss of my favorite, I rejoice in my son who always speaks the truth."

#### *Questions to Be Answered*

1. What is the difference between truthfulness and honesty?
2. Are lies ever necessary? How can we tell whether they are or not? What test shall we apply?
3. Whom does a lie hurt? Yourself? Others? Both? How? Why?
4. Does one lie usually call for another? Give examples.
5. Is it ever right not to keep promises?
6. Which comes first—truthfulness or loyalty to friends?
7. Are all lies equally bad? Why?
8. Look up the following in an unabridged dictionary and discover their differences in meaning; deceit, deception, fabrication, falsehood, untruth, fraud, lie, fib, duplicity, fiction, imposture, truthfulness, veracity, candor, frankness.
9. Paraphrase the following quotations:  
"Sin has many tools, but a lie is the handle that fits them all."  
"Honesty is the best policy."  
"The promise of an honorable man is a certified check upon the bank of character."  
"Dare to be true, nothing needs a lie;  
A fault which needs it most, grows two thereby."  
(Add others to this list.)

10. Ask your father whether "sharp tricks" in business pay.

11. Have a game contest. Give each member of the group an opportunity to originate a new game in which truthfulness is necessary. Play some of these games.

12. Write a story in which truthfulness has an important part.

13. Prepare posters on truthfulness. Post these in the corridors and classrooms.

#### *What an Analysis Discloses*

An analysis of the materials presented above will disclose the following:

1. Hypothetical problem situations are presented, typical of those occurring in the everyday life of boys and girls of junior high-school age.

"In proportion as children dramatize the personalities in thought, playing the roles imaginatively so as to enter into the problems of conduct, they are gaining ethical practice. They are passing judgment upon the good and the bad and often with high emotional emphasis."—Maurice J. Neuberg—*Right Living*.

2. Biographical and story materials are used:  
(a) To develop and generalize the concepts or principles of right action; (b) and to infuse them with feeling.

3. Assignment is made of "things to think about and things to do" in order to suggest further application of the principle presented. Actual conduct assignments as such are difficult, if not impossible for the teacher to make.

"There are, of course, those who hold that to systematize moral instruction is to emasculate it. This may be true if by systematization we mean teaching morals systematically day after day, although even that is open to question. . . . In the absence of an outline of items to be covered at appropriate points and at appropriate times, the work of the school must be haphazard and incomplete. If the field of moral education is to be adequately covered, if gaps are to be avoided and futile repetitions eliminated a systematically arranged list of topics must be prepared for the guidance of the teaching staff."—W. W. Charters—*The Teaching of Ideals*. The Macmillan Company.

"Thus are your pupils to be saved: First, by the stock of ideas with which you furnish them; second, by the amount of voluntary attention that they can exert in holding to the right ones, however unpalatable; and third, by the several habits of acting definitely on these latter to which they have been successfully trained."—William James' *Talks to Teachers*.

# Commercial Research for Service to Schools\*

*Manufacturing concerns, realizing that customer satisfaction begets success, are intensively studying problems of the school field to develop better products and thus offer better service*

BY T. W. VINSON, SECRETARY, NATIONAL SCHOOL SUPPLY ASSOCIATION, CHICAGO

MODERN progress is actively engaged in exploding ancient myths and in making old saws meaningless. We no longer believe that "a bad beginning makes a good ending" nor that "the king can do no wrong." We stake our faith on good beginnings and have so little faith in kings doing right that we will have none of them. We question the infallibility of a rabbit's foot and boldly defy the number thirteen. The ancient gulf between the classes and the masses has been effectually bridged and modern Americans pass freely from side to side according to their individual merit and ability. With industrial stocks and bonds sold everywhere on easy payments, every thrifty laborer becomes a modest capitalist and every successful capitalist must be quite a bit of a laborer.

### *Harmonizing Interests*

True research in any industry is primarily a means of harmonizing the interests of seller and buyer, of producer, distributor, and consumer. It is a pledge that the producer who undertakes it seeks his own welfare through affording better values and service to his purchasers. It marks the passing of the spirit of such a slogan as *Caveat emptor* and building on such principles as "The customer's interest is our paramount concern," or even the exaggerated rule "The customer is always right." The most elementary principle that industrial research discloses is that buyer and seller are partners in a more or less permanent relationship looking to their common good. It is of research as such a mutualizing and stabilizing of interests that I would speak to you.

The better research in school supplies and equipment is devoted not so much to finding out what the schools want as to discovering what they ought to want; not so much to fostering demands for needless things as to creating demands for things really needed. As a general thing, this

has resulted in a new market that did not previously exist, to the mutual advantage of the schools and the productive industry. The rapidly increasing use of art materials in education is an excellent illustration of the effect of extensive research conducted by commercial organizations with a view to building up a business by developing our national love of the beautiful through the teaching of art. Who can doubt that this is a national service to schools?

### *Correcting Existing Demands*

But some of the concerns represented in the National School Supply Association have engaged in research of a very thoroughgoing and expensive sort looking to the correcting and redirecting of existing demands. This has cost them not only the expense of the research, by no means a small item, and the greater cost of changing their own products in harmony with their findings, but has actually set up a sales resistance both among their distributing agencies and the purchasers.

An example of this sort of thing is the research into the sizes and shapes of kindergarten chairs. It was found that kindergarten chairs were sold almost exclusively in twelve- and fourteen-inch heights and in shapes and proportions that had little relation to the actual dimensions of children. The demand conformed to the traditional supply. There was absolutely no market for ten-inch chairs or the slightest indication of a desire for better shapes. An exhaustive investigation disclosed that not two per cent of kindergarten children should use chairs higher than ten inches and that a radically different shape was far superior for their comfort, posture, and training. The organization that made the investigation had a large and steady sale for the traditional article, yet they deliberately sacrificed this business and inaugurated a campaign of education to convert a nation-wide buying public to a radically new idea.

This is service to schools. The commercial institutions that engage in and make public the re-

\*Excerpts from a paper delivered at the Annual Convention of Public-School Business Officials, Denver, June 5, 1928.

search necessitating revision of their own products and practices, can hope to profit thereby only over a long service of years, by building up confidence, rendering large service, and stabilizing their industry. Such activities do not lessen competition, they lift it to a higher plane.

The leading manufacturers in all the principal lines of school supplies report continuing research seeking to improve their respective products. Experiments are constantly under way to improve the materials, finish, durability, or usability of paper, crayons, blackboards, maps, globes, laboratory equipment, furniture, seating, and everything that is sold to schools. Newer and better ideas are being worked out in windows, shades, clocks, lockers, building materials, heating and ventilating devices, plumbing, playground equipment, and everything that is built, installed, or consumed in a modern school. These improvements do not happen by chance. They are all the result of careful thought and expensive experiment.

#### *Wrong Application of Term*

Research is "careful or critical inquiry or examination in seeking facts or principles" (Webster agrees), and hence is subject to as many levels of quality and worth as there may be degrees of care or critical acumen in the inquiry. As would be expected, the term has been applied to a great range of thinking or near thinking that was not worth doing, and to puzzling over problems that never existed outside the imagination of the puzzler. An astonishing amount of labor and money has been devoted to developing devices in school furniture and other equipment for which there is no practical need.

Nor should the term be applied to the ingenuity and labor devoted to the development of a specific article however excellent in itself. Every improvement in school materials, and many a change that is merely different without being better, are the result of more or less work and brain fag. But research seeks "facts or principles" without reference to their applicability to any particular product and always without prejudice as to how they may affect it. Since the school-supply industry is intended to meet school needs, most of its basic research must be conducted in the schools themselves. We may well be suspicious of so-called "elaborate research" conducted by salesmen, mechanics, and chemists in a laboratory or shop.

In addition to the research being conducted by its members, the National School Supply Association has an energetic standing committee which is conducting a series of investigations so "that

the business agencies of the schools and the school-supply distributors may work together more closely in the interests of the school child." The first report is entitled "A Study of Present Practices in the Selection, Purchase, and Distribution of School Supplies" and presents an investigation conducted for the Association by Dr. C. J. Anderson of the University of Wisconsin.

The report shows, for a representative group of cities, through what educational agencies school-supply contracts are awarded and supplies ordered; when and how supply lists are made out and orders filed; how supplies are stored, allotted, and distributed; the per capita costs of general supplies and of special supplies for industrial, household, and fine arts, for physical training and various high-school departments. The wide variations in per capita expenditure for such purposes indicate the need of further investigation to establish reasonable standards. When annual expenditure for the same purpose varies from less than ten cents to more than \$20, there must be inadequate provision in some cases or waste in others, and probably both. Studies are planned for throwing light on many other pertinent problems.

The school-supply industry has traditionally been a highly seasonal business, running on a skeleton organization or closing down during a large part of the year and then working overtime with a half-organized force of raw recruits during the rush season. This condition inevitably means inferior products expensively and wastefully produced and distributed. It means mistakes, delays, confusion, and dissatisfaction. It means an unending succession of new and irresponsible adventurers into the business and a rapid passing out of the experienced ones.

#### *Seek Constant Improvement*

The better sort of manufacturers of school supplies are constantly conducting research into their own methods of manufacture, the aim of which is always the improvement of the product and more economical and efficient production. Elaborate tests are gradually standardizing processes and products. Guess-work is being eliminated. Formulas have attained an accuracy and methods a precision that enable the producer to sell his products with an absolute guarantee of reliability.

Research is beginning to be directed upon the problems of selling and distribution. It is easily discovered that selling methods are wasteful. Enormous costs for railroad fare, hotel bills, salaries, overhead, and even for entertainment, not only by the successful salesman but by all his competitors, are often involved when a two-cent

stamp would be as effective in making an equitable transaction. All these costs are sooner or later absorbed by the consumer. The better concerns are systematizing their methods of selling, cutting out wastes and duplications of effort, seeking to substitute reliability and confidence for opportunity and persistence as selling forces.

If, in addition to these wastes, low price is the persuasive argument, then low quality and poor service are inevitable and the price will be in countless future bills. If the determining factor in selling is an unqualified guarantee of satisfaction and service from an organization with ample resources to back it up, the only sales activity necessary should be co-operative activity between salesman and purchasing agent devoted to determining just what the requirements are.

#### *A Suggested Research Project*

In this connection I want to propose to you a research project of your own which may be of tremendous value in your work. With reference to your next purchase or letting of consequence, keep a detailed record of all the varied activities that are expended to get the business from you. Record the exact number of letters, circulars, catalogues, and other advertising or advance matter you receive. Make a record of all the telegrams, telephone calls, samples, and visits involved, including transportation, hotel bills, salaries, and the idle time involved in carrying a force of such men through the dull season ready to reach all such customers as yourself in the busy season, and don't forget your own time and that of the committees, board members, clerks, and others participating in the buying end of the trade. Keep these facts as accurately as possible. Find out or estimate as nearly as possible the costs of all these in dollars and cents. Remember that you must include the costs to the unsuccessful as well as the successful bidders. Ultimately you must bear your due share of all selling wastes.

You might also add a margin for your small share in the general costs of advertising, exhibits, and the overhead organization necessary to keep all this complex selling activity going, and similar efforts that do not reach you directly but must be shot out into the unknown in order not to miss possible buyers. You will probably be appalled at the size of this selling expense. Beside it the little difference of a few cents' cut in price which you managed to get by playing competitors against each other will seem trivial.

The other day a purchasing agent was in conference with the representative of a school-supply house with reference to a lot of equipment

that had utterly failed to give satisfaction. The dealer had passed on the responsibility to the manufacturer who had immediately sent an investigator from headquarters at heavy expense. The goods being a standardized line it did not seem possible that they should have failed so utterly in this one case. It was found beyond any possibility of doubt that the goods had been without fault when delivered but had been ruined by incredible stupidity in the handling and use of them after arrival.

The purchasing agent said: "I know that your house is the best and most reliable in this territory. You handle the best line of goods and have always given me a square deal. When I need supplies I will make out the list and send you the order. If I want advice I'll ask for it, but don't send me any salesmen. I won't see them. Save that expense and send a man around to the schools to see if the equipment is properly installed and supplies properly handled. See if we are getting the best possible use of what we buy. Help us to avoid waste there and keep your selling costs for profit."

#### *Initiative by Purchasing Agents*

You purchasing agents are the ones to take the initiative in eliminating wastes in selling expenses. Research can aid you to determine the conditions under which you can most effectively study the claims and merits of the competing articles offered. Research is needed to determine how economies resulting from elimination of selling wastes can best be distributed along four lines: (1) Constantly improving quality; (2) service after delivery; (3) profits adequate to stabilize the industry and make your business worthy of the highest quality and service; and (4) lower prices.

In closing I would suggest that the only way that the research conducted by the school-supply industry can render service to your schools is by your appreciating and supporting it and recognizing that it costs money and is well worth it to the consumer. I would further suggest that you, independently or in co-operation with the industry, investigate the elements of selling waste, for which purchasers are in large part responsible, and the wisest means of eliminating them. Hasty conclusions or revolutionary minded and thorough-going research would be profitable in the highest degree. You will find the substantial manufacturers and distributors more than ready to meet you half way and to work with you heartily in establishing the most effective partnership and co-operation toward the end for which you both labor—service to schools.

## The NATION'S SCHOOLS

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# Editorials

### Educational Leadership

THE inauguration of William F. Russell as dean of Teachers College, Columbia University, leads one who has been engaged in educational work in our country for a quarter of a century or longer to reflect upon what has happened to education since Teachers College came into the position of leadership in what may now be called the science of education and also the art of teaching. When the elder Russell, who has just turned over the deanship of the College to his son, was inaugurated as dean thirty years ago, Pedagogy, as it was then called, enjoyed a very unenviable reputation. The profession of Pedagogy was the Cinderella among the professions. It was ridiculed by all its proud sisters in academic centers. Professors in this field suffered from an inferiority complex, which was intensified by the attitude of their colleagues. It was frequently said when James E. Russell took charge of Teachers College that there was nothing in the field of education that was capable of scientific treatment. The successful teacher was born and could not be made. In colleges and universities, Pedagogy was the laughing stock of presidents, deans, and professors in older and more distinguished departments.

### The Development of Education

Compare the situation now with what it was twenty years ago. There is no resemblance whatever. There is more scientific work being done in the field of education to-day than in any other field, even though it is much more difficult to employ scientific methods in investigating educational problems than problems in physics, chemistry, astronomy, bacteriology, or any other scientific field. Vast resources, financial and intellectual, are now being employed in educational research. There is not a question pertaining to the material or method of instruction, the hygiene of education, or the building and equipment of school buildings that is not now under investigation. Education in colleges and universities has come out of its chimney corner and is holding its head as high and is looking about as confidently as any other department. Ridicule by colleagues has given way to respect, in most places at any rate, and to apprehension of complete domination in other places.

The Teachers College of Columbia University

has played the leading role during the past thirty years in producing this changed attitude towards education and improved procedure in every phase of educational work. The men and women who have led the way in the development of scientific methods of studying educational problems, including the investigation of the nature and needs of childhood and youth and the adaptation of education to individual differences among children, have either originated in Teachers College or have been adopted by the institution. They have been given freedom and opportunity to conduct experiments with a view to establishing a body of accurate knowledge relating to child nature and education and a body of skill pertaining to the art of teaching. Probably no other single institution in the world has made greater progress in any field of human interest than Teachers College has made in education during the last thirty years under Dean Russell.

#### *Unbiased Search for Truth*

The spirit that has been dominant in Teachers College for the last three decades has had a beneficial effect upon the attitude of teachers throughout our country toward educational problems and practice. Men and women who have shown ability to deal with educational problems in the spirit of modern experimental science have been granted independence in securing data and deriving conclusions therefrom and promulgating them freely. Men holding diverse educational philosophies and possessing different temperaments have been brought together in Teachers College to work out educational problems in a give-and-take relationship. Teachers College has not sought to coerce the members of its faculty into any one philosophy or theory or school of education. On the contrary, it has nurtured any clear-minded and sincere individual, though his ideas may not have been in accord with ideas entertained by other members of the faculty. Unprejudiced and unbiased search for truth has been the slogan of Teachers College, and this attitude has radiated throughout the whole country from New York City. The thousands of men and women who have had training at Teachers College, leaders to-day in every department of educational activity throughout the country, have taken with them from Teachers College the spirit of research and eagerness to find the truth irrespective of the effects of their findings upon contemporary educational beliefs or practice.

May Teachers College have as great influence throughout the whole world in educational leadership during the next thirty years under the son as it has had under the father!

## Education Is Becoming More Dynamic

**E**DUCATIONAL leaders at home and abroad are agreeing that education should consist in the acquisition of habits, skills, modes of behavior, and ability to deal effectively with the problems arising in every-day life. Learning which does not issue ultimately in adaptive activity is at best useless and it may be harmful. Thousands of investigators are at work devising ways to present the materials of education so that pupils will master them by using them in the manner in which they are designed to be used to facilitate the processes of adjustment to the physical and social environment.

In any up-to-date school in America or to a less extent in progressive foreign countries, pupils are on their feet much of the time, using their hands, working out concrete problems together instead of sitting in their seats and memorizing words. The old type of recitation is being completely abandoned. The teacher takes what a pupil can do as evidence of what he knows, though she may encourage him to describe what he is doing as making for a more complete understanding. It will be seen in such classrooms that, as a rule, pupils apply themselves diligently and happily, and it may be added, healthfully to their tasks because they are not required to remain immobile in their seats for several hours every day.

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#### On Making American Citizens by Imprisonment

**R**EADERS of THE NATION'S SCHOOLS have probably read in the newspapers accounts of the punishment meted out to young David Gordon for a poem entitled "America" which he published two years ago in the *Daily Worker* in New York City, and which was adjudged by the courts to be obscene. His case is interesting and significant when viewed from an educational angle.

When he was two years old his parents emigrated from Russia to the East Side of New York City. As soon as he could toddle about he had to work for his living. Very early he showed unusual literary gifts, and he began as a mere boy to write prose and poetry, though he was largely dependent from his earliest years upon manual labor for food, clothing, and shelter. At seventeen he wrote the poem "America" which was an indictment of the conditions of life in our country. He used vulgar and offensive figures of speech to describe America as he knew it. He did not expect that his poem would be published. He

let some of his fellow workmen in the factory in which he was employed read it and they, feeling as he did about the imagined injustice which manual laborers suffer in America, finally presented it to the editor of the *Daily Worker*.

It was brought to the attention of court officials by representatives of so-called patriotic organizations; and at the age of nineteen, two years after the poem was published, the boy was found guilty of circulating obscene literature and he was sentenced to three years in prison or reformatory. At the present time he is serving his sentence.

#### *Nominated for Zona Gale Scholarship*

Before he was nineteen, he had been praised by literary people in New York because of the merit of the poems and prose selections which he had published in general magazines. Some of his admirers knew there were opportunities at the University of Wisconsin for gifted young persons without social or financial backing to pursue a university course, and they suggested to him that he should make application to be admitted to the university and to receive monetary aid. This he did. His record was examined by those responsible for nominating candidates for what are known as Zona Gale Scholarships.

These scholarships are designed for young men and women of exceptional ability but without means who cannot comply with the usual requirements for entrance to a university but who would be benefited by a university course. A Zona Gale scholar may pursue any work in the university in which he is interested and for which he is prepared, without regard to the requirements of any course leading to a degree. It was found that this young man possessed exceptional literary ability, although he had only a very fragmentary and superficial education. A number of distinguished people in New York City commended him unqualifiedly for a Zona Gale Scholarship and one was finally awarded him. It was not known at the time that he was the author of the objectionable poem. He was holding his scholarship and devoting himself to serious study at Wisconsin when he received his sentence in New York City. It is generally believed throughout the country that the actual reason why he was punished was because he had condemned existing economic conditions in our country. It has been pointed out time and again that more obscene expressions can be found in popular magazines and novels printed in New York City and can be observed in the burlesque and motion-picture theaters of that metropolis.

Would Gordon have been recommended for ap-

pointment to a Zona Gale Scholarship if we had previously read "America?" The poem is offensive alike in its phraseology and in its content. It does not seem at all like Gordon because in the writings he submitted in candidacy for a scholarship, and in his personal appearance and manner, he seems to be rather timid and an idealist who could not entertain such violent and obscene thoughts and feelings as he expressed in "America." Even so, he might have been recommended for a scholarship had he submitted "America" for examination, because the purpose of the scholarships is to give men and women of superior ability an opportunity to acquire knowledge and gain attitudes toward their fellows and their country which will convert them from dangerous enemies into understanding and loyal friends. Gordon, if left in the factories of Brooklyn, would have become a menace to the country because his pen would have become ever more hateful and vitriolic; but with a university course, his mind would have been sweetened and he would have been helped to appreciate and to approve the fundamental aims and ideals of America instead of remaining embittered in view of imagined persecution and injustice.

#### *Education Changes Their Viewpoints*

Since the establishment of the Zona Gale Scholarships, we have had the confidence of a number of young brilliant but cynical men and women who had grown up under such conditions in New York City as had shaped the thoughts and feelings of David Gordon. They were taken out of New York City, embittered against all organized society, but returned after a period of life on the University of Wisconsin campus, reconstructed in their attitude toward their fellows and their country. As much could probably have been done for David Gordon if he had been paroled to the university instead of cast into prison or sent to the reformatory. He could in time have been led below the surface of social conditions which had developed in him the belief that America is a cruel monster, indifferent to the fate of all its children except those who suck the life-blood of their fellows. These are the ideas that Gordon imbibed in his life in New York City, and they will almost certainly become fastened upon him and make him a menace to mankind unless he can gain knowledge and points of view which he does not now possess, and which he can never gain in prison or reformatory.

Young men like Gordon—brilliant, cynical, vengeful, desperate—cannot be converted into useful American citizens by casting them into prison where they will brood over imagined

wrongs and become obsessed with the feral desire to break down all organized society. We have observed a number of these embittered young men and women, from New York City particularly, change their entire philosophy of life under the influence of training at the University of Wisconsin. They gain insight into the complexities of American life and gradually grow to have confidence in instead of suspicion of and antipathy towards American institutions.

#### *Two Contrasting Policies*

New York City seems to be following the policy of trying to coerce its brilliant young radicals into an attitude of confidence in and affection for organized society. A policy of this sort has always failed in older countries and is failing to-day to produce loyalty and patriotism and to restrain destructive activities in the countries in which young people like Gordon originate. Men and women with such gifts as Gordon possesses cannot be diverted from a menacing into an understanding and loyal and self-regulated career by imprisonment. The University of Wisconsin is pursuing a different policy. It believes that through enlightenment, such as can be secured on a university campus, young men and women can be led to understand American ideals and to adapt themselves sympathetically to our institutions.

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#### School and College Discipline Is in the Middle Ages

**H**OW many readers of these lines know how students are disciplined in the typical college? Here's the way the thing is done: A Discipline Committee is appointed, the members of which are specialists in Hebrew (it may be), physics (it may be), English composition (it may be). Of course, any other combination of specialists might be concocted by the president of a college. These specialists as a rule know less about human nature, especially deviations from what might be called standard types, than they know about almost anything else in the universe. They make no pretension to have studied abnormal or clinical psychology, or psychiatry, or psycho-analysis, or the causes of delinquency, and so on. Each is a specialist in his own field, which has no connection whatever with erring human nature.

How does this committee attempt to deal with offenders in the college community? They have a schedule of penalties worked out for every one of the catalogue of offenses. If a student has "cut" more periods in any class than are allowed

by the rules, the penalty for such an offense is imposed upon him. If he has taken a book from the library and kept it over-time, he gets the penalty that belongs to this crime. If she has gone out riding without having received permission from the dean of women, she gets what's coming to her according to the schedule of penalties. And so on *ad libitum*.

Do the members of the typical disciplinary committee think it is necessary to diagnose the intellectual and emotional attitudes of an offender in order to discover why he has offended and what is the best way to cure him? They do not. They would regard such methods as sentimental and ineffective. They act on the principle that anyone who offends in any way could have lived virtuously if he had willed to do so; and their method of treatment is designed to stimulate his will by appropriate and painful stimuli. The crudest work in education to-day is performed by discipline committees, and the situation is certainly no better in the high school than it is in college.

#### *The New Development*

Happily, a better day is dawning. A few of the colleges are establishing clinics—without calling them clinics—for the study of the student misdemeanors. Men and women who have delved into human nature and who understand how complex it is and how the emotional as well as the intellectual life can become twisted, are given positions on the campus, and no discipline is administered without their advice, based upon as thorough-going a diagnosis of each individual offender as they are able to make. Usually it is easily possible for a competent diagnostician to straighten out offenders without any action on the part of the disciplinary committee. May the day speedily arrive when no penalties for misconduct in high-school or college communities will be inflicted except upon the prescription of properly-qualified mental and moral physicians!

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#### One Way to Reduce Retardation in the Schools

**A**PPROXIMATELY one-third of all the children in the elementary school are backward or retarded. They lose from one to three years in making adequate preparation for their life work; they suffer humiliation in not being promoted with their classmates; and not infrequently they develop an antagonistic and vindictive attitude toward their school and their teachers.

The causes of backwardness usually advanced

by parents and laymen are laziness, indifference, lack of ambition, and wandering attention. It is popularly believed that if a backward pupil wished to do his school work as well as his classmates, he could do so. Many people regard dullness as due to lethargy of the will, and dull children are chastised in one way or another, or at least upbraided because they do not master their lessons according to the standard of excellence established by the majority of children in the grade in which they are enrolled.

#### *Malnutrition and Backwardness*

Recent investigation has shown that certain physical conditions produce dullness among school children; and this dullness cannot be overcome, at least wholly, by effort of will. One condition that is responsible for backwardness in school is faulty or inadequate nutrition. A survey in the city of Detroit revealed the fact that boys who were one year retarded were about two per cent below the average weight of the boys in the grade in which they were enrolled. The average weight of boys who were four years retarded was more than eight per cent below the average weight of the boys of the grade in which they were enrolled. It is not always but it is usually the case that underweight is due to faulty nutrition.

#### *Mid-Session Luncheons Beneficial*

The reports published in a number of towns and cities giving the results of the plan of having underweight pupils take a bottle of milk and a sandwich at the middle of the forenoon and the afternoon sessions show that malnutrition can be overcome in the case of most children. And we have data enough now relating to the effect of improved nutrition in reducing retardation in the schools so that it is safe to say that if any town or city in which the problem of backwardness is a serious one would inaugurate a program designed to counteract malnourishment in school children, the proportion of retarded pupils would be reduced.

Of course, proper nutrition for children is the concern of the home principally. But a survey made in Wisconsin showed that many parents, even in prosperous and intelligent communities, were quite ignorant regarding the values of different articles of food and properly balanced bills of fare for children of different ages. In one of the most prosperous counties of the state, homes were found in which the children lived almost entirely upon white bread and vegetables because these were the cheapest articles of food. Meat and dairy products were sent to the cities because they could be sold for a good price. Some of the

children drank coffee and tea instead of milk. When parents were reproached for feeding their children in this manner, they would reply, and honestly too, that the children liked tea and coffee, and they thought these beverages were good for them. Also, they thought that cabbage, for instance, was as good a food for a child as milk. McCollum in his *American Home Diet* has pointed out that in the majority of homes there is lamentable ignorance regarding proper food for the young.

We have in our country over a million members of parent-teacher associations. One problem that these members ought to study is the nutrition of children in their respective localities. There ought not to be a home in any community in which there is a parent-teacher association into which there should not penetrate some accurate and usable information regarding proper foods and a balanced bill of fare for the young. Accurate and concrete information can be gained from government bureaus at Washington and from the department of home economics in any state university.

#### *Causes of Malnutrition*

It has been shown by recent investigation that malnourishment is not always due to improper food or a poorly balanced bill of fare; a child may have proper food and a well-balanced dietary, but still he may be malnourished. A timid child who is frequently frightened is very apt to be poorly nourished and to be underweight. If he does not secure enough of sleep or is kept in a state of nervous tension because of the excitement about him, his system cannot convert food into brain, nerves, muscle, bone, or other tissues; so that well-informed persons who study malnourishment in children to-day do not stop with an examination of their bills-of-fare; they study the various factors in their environment in order to find all the causes operating to prevent the individual from assimilating food, providing that he has the right kind and amount of it in his daily bill-of-fare.

#### *A Loss to the Community*

We are spending vast sums for the education of our children and every child whose physical condition makes it impossible for him to take advantage of the opportunities we are offering him is a loss to the community, so that even if we do not wish to take into account a child's welfare for his own sake, we ought at any rate to endeavor to counteract malnutrition in order that we may get the most for our money that is spent in educating him.

# Minneapolis Program Presents Many Interesting Discussions

FOR the first time since the National Education Association was organized in Philadelphia in 1857, a classroom teacher will preside over its great convention in Minneapolis, July 1-6. The classroom teacher is Cornelia Storrs Adair, instructor in English in the Bainbridge Junior High School, Richmond, Va., and president of the world's largest professional organization.

Not only were there no classroom teachers in

educational journal, or as a superintendent of schools, shall be eligible to membership."

In 1866 the word "gentleman" was replaced by the word "person."

In 1868 the record indicated that one woman attended the convention of the Association held in Cincinnati. In the 1928 convention women will be in the majority and many of them will appear on the programs arranged by President Adair and the department presidents.

Miss Adair has chosen as the central theme of the 1928 convention, "Education for Citizenship." There is to be a symposium of citizenship training for two days, Tuesday and Thursday of the convention week. At these two sessions the speakers will be A. G. Crane, president, University of Wyoming; Prof. F. M. Gregg, Nebraska Wesleyan University; Agnes Samuelson, state superintendent of schools, Iowa; Sally Lucas Jean, health education consultant, Metropolitan Life Insurance Company, New York City; Mrs. S. M. N. Marrs, president, National Congress of



*H. A. Allan, business manager of the National Education Association, in charge of the Minneapolis exhibits.*

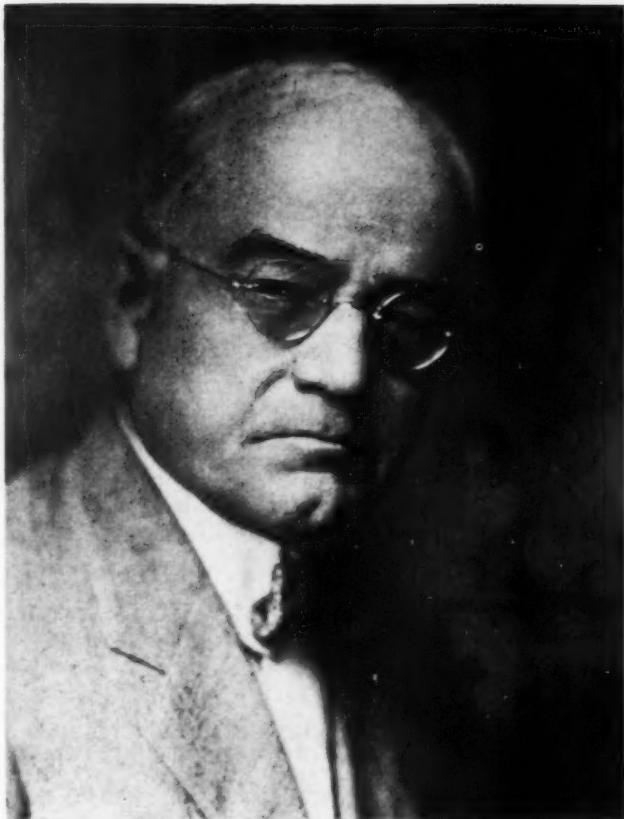
high positions in the early days of the Association, but women were not admitted. Until 1866 it was an association of "gentlemen." The first paragraph of Article II of its first constitution reads:

"Any gentleman who is regularly occupied in teaching in a public or private elementary school, common school, high school, academy or scientific school, college or university, or who is regularly employed as a private tutor, as an editor of an



*President Cornelia S. Adair.*





*W. F. Webster, superintendent of schools, Minneapolis.*

Parents and Teachers; Dr. Hugh S. Magill, general secretary, International Council of Religious Education, Chicago; Edward A. Filene, Boston; and Dean John W. Withers, School of Education, New York University.

Another unusual feature of the Minneapolis program will be the general session on Thursday evening, July 6, in the Minneapolis Municipal Auditorium, when the members of the Association will hear discussions of the standards and ideals of three great professions as they relate to citizenship. The speakers will be H. C. Horack, adviser on legal education and admissions to the bar, Iowa City, Iowa, speaking on "The Standards and Ideals of the American Bar Association;" Dr. W. J. Mayo, surgeon, Mayo Clinic, Rochester, Minn., speaking on "The Standards and Ideals of the American Medical Association;" and Mary McSkimmon, principal, Pierce School, Brookline, Mass., and former president of the National Education Association.

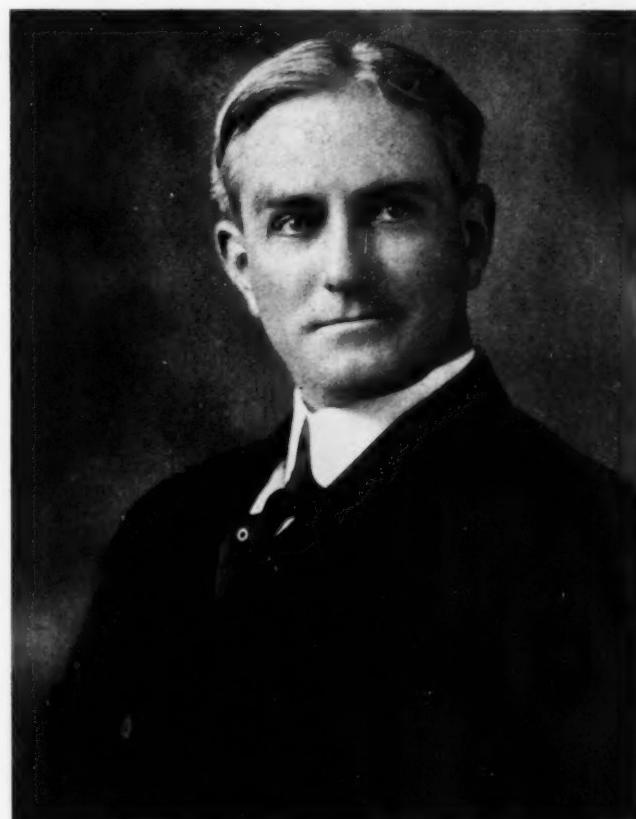
The Minneapolis meeting, which is the sixtieth convention of the Association, will open according to the established custom with a vesper service on Sunday afternoon, July 1, in the New Central Lutheran Church of Minneapolis. Sunday evening there will be a sacred concert in the Minneapolis Auditorium under the auspices of the National Education Association.

At the open general session Monday morning,

the presiding officer will be Dr. Francis G. Blair, state superintendent of public instruction, Illinois, and first vice president of the Association. Addresses of welcome will be presented by Theodore Christianson, governor of Minnesota, and Arthur R. Rogers, president of the Minneapolis Civic and Commerce Association. Greetings from the Canadian Teachers Federation will be delivered by its president, E. A. Hardy, Toronto. Miss Adair will deliver the presidential address at this session.

Monday evening Thomas R. Cole, superintendent of schools, Seattle, Wash., will preside and the speakers will be Mary Stewart of a Boston newspaper, Boston, Mass.; Samuel Crowther, author and collaborator with Henry Ford in the latter's autobiography, Bayside, Long Island; Zona Gale, author and lecturer, Madison, Wis.; and Daniel L. Marsh, president, Boston University. Dr. Marsh will speak on "Education and True Patriotism."

Sessions of the Association's Representative Assembly will be held Tuesday, Thursday, and Friday mornings at 9 o'clock with President Adair in the chair. At the Tuesday morning session, greetings from the National Association of Teachers in Colored Schools will be presented by Major Robert Moton, principal of Tuskegee Institute, Tuskegee, Ala. Reports will be made



*P. P. Claxton, superintendent of schools, Tulsa, Okla., will present the "Claxton Report."*



*Frank D. Boynton, president of the Department of Superintendence.*

by Sarah T. Muir, Lincoln, Nebr., chairman of the Committee on Ethics; William M. Davidson, superintendent of schools, Pittsburgh, chairman of the Legislation Commission; Jean L. Soules, Spokane, Wash., president of the Department of Classroom Teachers; and J. Stevens Kadesch, Medford, Mass., president of the Department of Secondary-School Principals.

Thursday morning Fred M. Hunter, superintendent of schools, Oakland, Calif., will present the report of the Committee on Tenure, and E. Ruth Pyrtle, Lincoln, Nebr., will report for the Committee on Retirement Allowances. The Department of Adult Education will be represented at this session by L. R. Alderman, specialist in adult education, United States Bureau of Education, and the Department of Rural Education by William McKinley Robinson, Western State Teachers College, Kalamazoo, Mich.

Friday morning the delegates to the Representative Assembly will have an opportunity to discuss the now famous "Claxton Report" or Report of the Committee on Delegate Representation and Kindred Questions to be presented by P. P. Claxton, superintendent of schools, Tulsa, Okla., chairman of the committee.

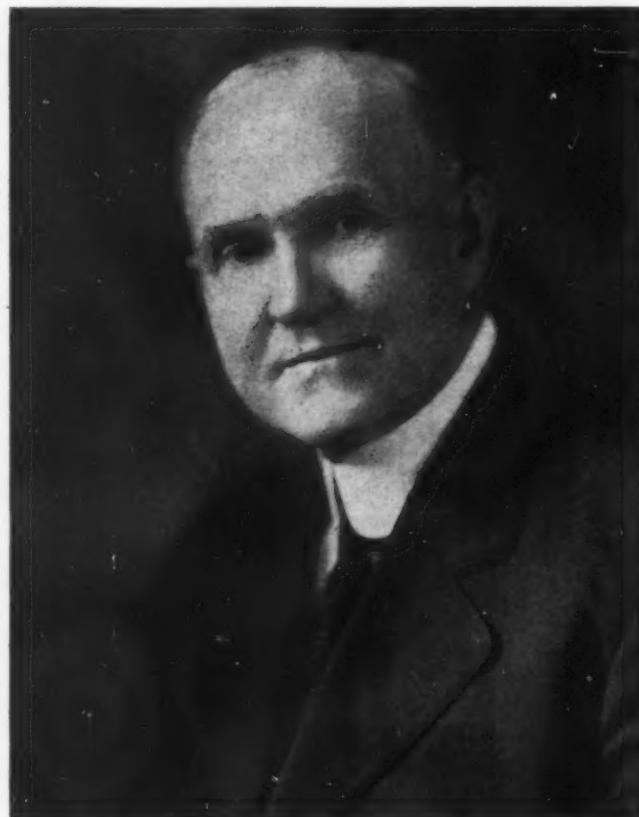
Wednesday, July 4, will be devoted to the observance of Independence Day. At the general session in the Minneapolis Auditorium Wednes-

day morning the principal address will be delivered by United States Senator Simeon D. Fess of Ohio, and former president of Antioch College. Senator Fess will be introduced by Mayor George E. Leach of Minneapolis.

Wednesday afternoon the visitors will be the guests of the city of Minneapolis and in the evening a reception in their honor will be held by the Minneapolis teachers.

At the general session Tuesday evening, Mrs. Cora Wilson Stewart, director, National Illiteracy Crusade, Washington, D. C., will preside, and the speakers will be Mrs. Edith B. Joynes, Norfolk, Va., Eastern executive committee member of the Department of Classroom Teachers; Dr. H. B. Wilson, director, American Junior Red Cross, Washington, D. C.; Dr. Walter R. Siders, field representative of the World Federation of Education Associations, New York City; and Dr. James C. Yen, general director, National Association for Mass Education in China, Peking.

Dr. Frank D. Boynton, superintendent of schools, Ithaca, N. Y., and president of the Department of Superintendence, has announced that there will be a conference conducted by his department for all superintendents in attendance on Monday afternoon, July 2. There will be meetings of the Department of Secondary-School Principals on Monday and Tuesday afternoons.



*W. M. Davidson, superintendent of schools, Pittsburgh, is chairman of the Legislation Commission.*

# Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

*This department will be devoted to an informal discussion of problems arising in the every day life of principals and superintendents. The following are excerpts from letters that have been received recently by the director of this department. Similar inquiries are invited, and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.*

## How to Sell the Schools to the Community

Recently an inquiry was received concerning the best attack to make in maintaining a continuing program of school publicity. While no set rule can be formulated that is applicable to all situations, on the other hand, there are certain fundamental facts of which account should be taken in the matter of school publicity.

In the first place, a constant effort should be made to arouse and keep alive a proprietary attitude in the constituency toward the local school system. Human beings are most interested in that which they think they own, and it is certainly true that every man and woman in the community is joint possessor of the local school system. The general fundamental basis about which a proprietary attitude and burning interest can be maintained toward public education lies in convincing the constituency that the local school system has a definitely established policy, and that every project of the school is pointed toward some definite end.

An outline of a talk appropriate for a parent-teacher association or business men's club sent to a town in Northern Illinois recently is as follows:

### *The Meaning and Purpose of Modern Education*

#### I. What is modern education trying to do?

Modern education is trying to teach boys and girls to do better the things they are going to do anyway. Furthermore, the modern school is trying to train boys and girls so that they will choose a higher type of activity to engage in as adults than they would have chosen had they not been in school.

#### II. How is modern education trying to achieve its purposes?

Modern education is trying to achieve its purposes by choosing a curriculum adapted to the

needs of present-day life. This is being accomplished by eliminating material from the old curriculum that is useless. For example, the modern curriculum in arithmetic centers the work on fractions on such fractions as halves, thirds, fourths, fifths, sixths, sevenths, eighths, ninths, tenths, twelfths, sixteenths, twentieths, and thirtyseconds. This is a marked contrast to the work in fractions when the present-day fathers and mothers went to school, since fractions having denominators of unwieldy size were commonly employed in the arithmetic curriculum of a generation past.

### *Comparison of Old and New Schools*

This point, how modern education is trying to achieve its purposes, should be fully illustrated by drawing many examples of how the curriculum of the modern school differs from the schools that the present-day adults attended. Simple, every-day illustrations should be cited, as the marked attention being paid to education for the proper employment of leisure time, and the large amount of work being done in civics, character training, and so forth.

#### III. The lay responsibility in the attainment of the objectives of modern education.

(1) Lay people should not think they are competent to give advice on any and all phases of public education. Education is the only known profession that every intelligent man and woman feels fully qualified to fill. Such matters as selection, grading, educational diagnosis, and promotion are just as technical matters as are the taking of blood counts and the construction of footings in a house. Consequently, fathers and mothers should be just as hesitant about disputing the practices and recommendations of the professional educator as they are about questioning the advice of lawyers, doctors, and engineers.

(2) Although laymen should not feel them-

selves competent to pass final judgment on professional education, on the other hand, it is the obligation of every citizen of the present day to have the same sort of tolerant, but at the same time sympathetic, attitude towards the public schools as he has towards such community services as public utilities, fire and police protection.

(3) Public education is at least in a measure like all other commodities. It is expensive. It requires the expenditure of adequate funds. When the parents declare that they want their boys and girls to have certain educational training, such declaration automatically implies a willingness to pay for it. Any community can have the kind of schools it wants, but such wants can usually be measured in terms of the school tax levies. Assuming a reasonable degree of efficiency in the administration of the local schools, if a community talks of reducing the cost of education, it is at the same time talking of reducing the quality of education its boys and girls will receive. The system of education in the United States is the property of the taxpayers and citizens of the communities. The schools do not belong to the teachers or administrative officers. They are your schools and my schools. The term *schools* should arouse a keener and more intense proprietary feeling in the citizens of a community than anything else because the school is the heart of modern life.

This outline is indicative and suggestive of the point of view that should constantly be kept before a local school constituency. Only insofar as citizens realize that modern education is attempting to furnish in a scientific way what a local school constituency needs will public support be adequate and easily gained.

### Planning a New School Building

"If you were planning a negro schoolhouse of about four classrooms to house the seven elementary grades and two years of high school, which would be the only schoolhouse in the community for negroes, what are the indispensable parts and departments that you would include in the building? The building I have in mind must be for about 125 or 150 pupils. There will be four or five teachers, probably five. I do not think the enrollment will justify provision for more than two years of high school.

"You know, of course, that our community is located in an agricultural part of the state, and that most of the negroes either remain in the town, working at any sort of jobs that they can get, or else go to the farms. I shall appreciate very much any suggestions from you."

It is impossible to give anything like a com-

plete and reliable answer to the above inquiry on any basis other than a scientifically developed school building program. Before any community can consider school building needs with a proper discrimination, it is necessary that a definite and carefully formulated philosophy of education be crystallized and adopted, not only by the professional educators and board of education in the community, but by the entire constituency as well. This philosophy of education should be based on a functional analysis of the needs of a given community, together with a carefully formulated set of desired objectives for the future development of the community. This functional analysis should be organized around the following elements: (1) What the graduates of the schools are doing; (2) what the citizens of the communities are doing in their daily lives; (3) what the present pupils of the schools think they will do; and, (4) on the basis of any probable unusual industrial or commercial developments that might affect the future enrollment of the school.

### *Must Satisfy Needs of Boys and Girls*

In such a functional analysis, care should be taken to recognize the essential needs of cultural as well as vocational education. During the last few years, stress has been laid on the utilitarian values of the modern school curricula. Certainly no offering should be made by a local school system that does not satisfy the real need of boys and girls who attend the schools of the community. Power of appreciation and beneficial employment of leisure time are frequently just as influential in determining the success or failure of an individual as the power to perform some technical task. Consequently, *utilitarian* should be interpreted as anything that can be used. It obviously follows that *vocational* may well be defined as anything pertaining to the immediate task of earning a livelihood, while *cultural* can be considered as that which contributes to the spiritual, mental, and personal broadening and development of the human being.

In short, it must be fully realized by every member of the community that school buildings constitute a part of the tool equipment of an educational institution. Too frequently, a high-school building rather than what goes on in such a building represents the last word in a school system. Such an attitude is unfortunate. School building programs and school buildings should be developed and centered around the activities that a school system offers for the boys and girls of the community, such activities being chosen on the basis of needs of all kinds. After a philos-

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ophy of education has been developed in a community, it must, of course, take shape in the form of a local school curriculum. Obviously, then, it is necessary to develop a school building program covering a future period of ten to twenty-five years.

The beginning step in the formulation of a school building program is, of course, a population study based on the following divisions:

- (1) Racial composition of the existing population.
  - (2) Residence distribution of population.
  - (3) Population trends.

Parallel with, and accompanying the population study, a study of the existing plant of the entire school system should be made. This evaluation of the existing plant should be centered around the following divisions:

- (1) Adequacy.
  - (2) Condition.
  - (3) Accessibility.

The above comments and suggestions indicate in a very general way what anything like a reliable answer to your inquiry would involve. However, I know this is not what you want. To be sure, classrooms must be the basic unit of any school building, but may I recommend that when you consider general classrooms, kindergarten, household arts, and industrial arts be provided to as generous a degree as is feasible.

If it is at all possible, an auditorium should also be included, unless there already is a very good auditorium for negroes in the community. It seems to me that one of the things needed most in all southern cities is a suitable gathering place for the negroes in school buildings. It is very desirable for all people of any race to have a proprietary interest and loyalty for the school their children attend. Consequently, the school building as a community center furnishes an excellent opportunity to develop and foster this spirit. Only on the basis of such a procedure as that suggested above will proper school functions be executed.

## Keeping a Record of Vouchers

It is frequently necessary to refer to the check vouchers covering a considerable period of time. Indeed, the ability to consult the files of paid bills often assumes a point of urgency. Sometimes a good deal of unpleasant negotiation with the possibility of a law suit can be avoided if the records of all transactions a board of education has had with a firm are immediately available. Within the past few weeks several inquiries have been made concerning the recording of checks. To be sure, the voucher register contains all desired in-

formation, but it is obviously no little trouble to collect the data in this form. The best answer I can give to the question, "What is a good way to keep a record of vouchers by firms?" is the following quotation from a letter along with a card recently sent me by a very good superintendent in a community of some ten thousand.

"I am enclosing a check index card that we find useful in referring to checks and filed invoices. Our scheme is to have a card for each individual or company who has received a check. This card bears only the name of the person or company and each time a check is issued, the number of the check and the date are written in one of the blanks. All of the cards are filed alphabetically, and we file the canceled voucher, together with the original invoice, in the voucher jacket. The invoice, or bills, are stamped as follows:

Paid by Check No. ....

Date .....

and the clerk enters the number of the voucher and the date of its issuance in the proper blanks of the stamp on the invoice. If at any time, it is necessary to refer to invoices, bills, or canceled vouchers, the check index card file is a ready ref-

erence. From this card we know the date and the number of the checks that have been issued, by firms, and can turn to the invoice of any account with very little trouble. We do not keep any ledger accounts with companies; we merely hold the invoices until they are paid at the end of the month, and then file them as indicated above.

"I thought possibly this system might be interesting to you. Other people may have used it, and may be using it now. Five or six years ago, when I first became a superintendent, I found it useful, and have been using it ever since."

The value of a scheme such as the one outlined above is obvious. It is applicable to a school system of any size and will facilitate and expedite the task of looking up any matters involving vouchers issued by the board.

# Keeping 1,500,000 people alive



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*An interview  
with the Health Director  
of the Equitable Life  
Assurance Society*

by ALLAN L. BENSON

A MAN with fifteen hundred thousand persons under his observation learns a good deal about human life.

Dr. Arthur Geiringer is head of the Equitable's Health Conservation Service. He makes his observations through the twenty thousand physicians who are helping him to help a million and a half policy-holders keep alive and healthy.

"Everything having to do with health is important," says Dr. Geiringer, "but one thing is most important of all—that is sleep."

"All health—even life itself—is pivoted upon sound sleep. Seventy days and more one may go without food and still live; ten days or so without water; but a week without any sleep would wreck a giant and a few days more would put him in a mad house—or a cemetery."

"It is all very simple. Your nerve centers are your power house from which every organ you have gets the energy and impulse to drive it. Work and wakefulness draw upon your power reserve. Rest and sleep permit a new supply to accumulate."

The modern tendency in great cities is to assume that sleep is more or less unnecessary—something one may skimp without serious results.

"Ten percent of the business men in America," says Dr. Geiringer, "are on the verge of a nervous breakdown. The average man feels only fairly well. Unquestionably the basic cause in practically all these cases is lack of sufficient rest and relaxation."

"If you would feel your best and live long—keep on good terms with your pillow."

This is the message the Health Director of the Equitable Life is sending out to a million and a half policy-holders—again and again and again."

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## The Educational Round Table

*Your viewpoints, criticisms, and ideas may find expression in these pages. Write to the Editor, on any thoughts that you feel have significance to the entire school group.*

# Do Schools Develop the Creative Abilities of Pupils?

TRAINING young people to be original, resourceful, creative is now in the forefront of educational discussion. During the past few months several books and innumerable articles have been printed on the subject. The position taken by most of the writers is that our schools and colleges are training the young to be imitative rather than to be original and creative. Schools and colleges are being condemned unsparingly in current book and magazine literature because they do not stimulate and nourish the creative powers of children and youths. One of the most recent books on creative work in education claims that our schools and colleges paralyze rather than encourage original, creative ability in the young. It is asserted that in school and college classrooms young people spend their time memorizing the contents of textbooks without attempting to be creative in any of their work.

### *Cultivate Creative, Original Activity*

The NATION'S SCHOOLS believes that every effort should be made to cultivate originality, resourcefulness, initiative, and creative activity in the young. In succeeding issues of this magazine, there will be presented the methods and results of work now in progress which are designed to develop creative power. Are the schools and colleges, as a matter of fact, now training the young to be imitative and assimilative rather than to be original, resourceful, and creative? Can pupils absorb the culture transmitted from the past and still be original and creative? Is it more important for the schools to train people to think and to conduct themselves in much the same way as their fellows than it is to foster individual traits that distinguish people from one another?

These questions were asked of several promi-

nent educational people and their responses are presented herewith.

HON. JOHN A. H. KEITH,  
*Superintendent of Public Instruction,*  
*Pennsylvania:*

Schools and colleges, notwithstanding their uniformity, are of all sorts. Some of them are training the young to be imitative and assimilative. Repetition is, in the last analysis, a form of imitation; but whether the assimilative aspect shall end with assimilation or not depends entirely upon the methods used by the school or college. We must grant that there are certain things about which originality is no longer possible, or at least desirable. Our capital A and figure 5 are pretty well standardized and, in general, the formal side or aspect or vehicle of knowledge and custom ought not to change rapidly, and then only on the basis of careful thought by adults, rather than by the impulsive jabs of youth. When, however, we consider the content of what is carried through the form, it is the method followed that determines whether or not the assimilative process shall have along with it elements of originality, resourcefulness, and creativeness.

We must admit that the culture of the past has been constructed through discovery, invention, and adaptation or adjustment. If this is true, then the existing culture has as one aspect of it the mental processes by which it was created and, therefore, it seems to me, the culture should be transmitted in inventive, discoverative, and adjustive ways. Only in this way can the true inwardness of the existing culture be comprehended.

It is likewise evident that education must endeavor to make people alike and that it must



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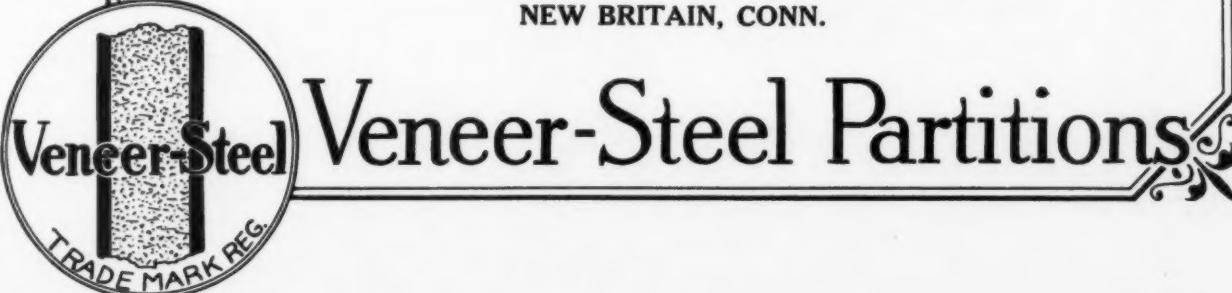
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also endeavor to make them different. The elements of likeness furnish the common core of consciousness of kind on the basis of which co-operation is possible. Likeness among individuals promotes social solidarity, which fosters the perpetuation of a culture already achieved.

It is just as true that differences in individuality make sometimes for advancement and sometimes for regression. The answer lies with neither of the alternatives of the question as proposed, but with both.

The transmission of culture from one generation to the next is not a single process. There is a significance and meaning to the culture and there is a form in which the culture has its existence. In mastering the form imitation and assimilation come to the front as methods based on mental processes. When one goes back deeper into the matter, one finds the creative aspect of an existing culture and sees clearly that all advances in culture must come out of creative acts; and since, therefore, no one desires a static culture, the original creative activities of the human mind must be cultivated. Again the answer is not in terms of alternatives, but really both methods must be used.

JOHN H. BEVERIDGE,

*Superintendent of Schools, Omaha, Nebr.:*

I think some of our high schools are doing excellent work in teaching children to think about things that are worth while. I am impressed with this every time our Technical High School of this city gives a banquet to its seniors. We graduate from this school a four-year class every twelve weeks. The school is in session forty-eight weeks during the year, thus enabling us to organize every twelve weeks and carry our work forward in the manner indicated. The high schools are all doing excellent work along this line, it seems to me.

When a high-school pupil can compose a piano selection and give it in public and elicit favorable criticism it seems to me she is doing something original. When a class of pupils can write a cantata and, with the assistance of their teachers, produce it, it seems to me the effort is worth while even though it may not be perfect.

I do think that some pupils are sent to college for social purposes in the interest of the pupils themselves and often in the interests of the parents—to give such a parent, at least in his own mind, a better social status.

I do believe that there are schools that are doing something to encourage initiative, to make pupils resourceful and thoughtful.

We should do more to encourage individual ini-

tiative on the part of pupils. Scholarship should be encouraged and should be recognized. Of course, there are comparatively few strictly original and creative thinkers who are resourceful in a high degree.

DAVID E. WEGLEIN,

*Superintendent of Schools, Baltimore:*

It is the function of both schools and colleges to train young people not only to be imitative and assimilative, but also to be resourceful and creative. Unless educational institutions endeavor to do both, they would not be fulfilling their complete purpose. By no means should the culture transmitted from the past be omitted. Nor, on the other hand, should there be failure to stimulate pupils to be original and creative. It is just as important for education to endeavor to make people alike in certain matters as it is to develop individuality along other lines.

As has been stated frequently, education should include both "integration and differentiation." The factor of integration is the more influential in the lower schools, and the factor of differentiation becomes increasingly important as we go up the grades. At no time, in both school and college, should the integrating factors be omitted. At the same time, the amount of differentiation, both in the quantity and in the kind of work, should be gradually increased. The introduction of the junior high school as a try-out school is intended to afford opportunity for the beginning of differentiation.

Finally, there is no incompatibility in providing for both processes in education. The individual fulfills his highest purpose in the community when both integrating and differentiating processes have been carried out satisfactorily.

"My tale in regard to the building here, I fear is a sad one. I feel somewhat ashamed to confess that we school men are too lightweight in our own communities to have much influence with building committees."

This confession comes in a letter from an excellent school man, one whose patrons and trustees praise highly, and, freely say "He is one of the best principals in the state." And yet his official board gives little or no consideration to his advice in matters relating to plans for a new school building. They depend on him to recommend teachers, to plan and carry through an educational curriculum, to promote and graduate high-school pupils, and, in general, to manage "school affairs."

But, when a new building is to be constructed, they, who know nothing about the planning of



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modern schoolhouses, nor the needs in educational buildings to meet the demands of to-day, go at it without hesitation and are ready to decide on a plan in a half hour. They have not learned yet that action without knowledge in these particulars, as in all others, is precipitate and ill-advised. These are good people and go to much trouble to serve their communities and do their very best to be good servants. You ask, "Why do they undertake, without sufficient thought and knowledge, to do what they cannot do well?" They have not been taught, and they do not know that they do not know, hence are ready to act now.

#### *Must Anticipate Construction*

What should be done? Teach them. Every school principal who knows that his community expects to construct a new school building soon should anticipate and work up plans and information so that he may be ready to discuss them with members of his board individually and fix in their minds the essentials with adequate reasons for all he presents. He will then be able to develop a definite plan with which to guide an architect long before the blue print stage. If nothing definite and tangible is done before the eager architect sets before them plans without sufficient knowledge, and without sufficient guidance, the case is lost.

---

#### Minimum Salary Schedules of North Dakota and New York

According to investigations made by the Bureau of Education, North Dakota and New York have enacted minimum salary schedules. The North Dakota law, passed in 1921, provides a minimum amount of training and a minimum salary for teachers; that after August 31, 1923, any entering teacher shall, as a minimum requirement, hold a diploma from an approved high school, or the equivalent, and meet all certificating requirements as to professional study; that for such preparation the minimum salary be \$810 per year of nine months; and that no less than \$50 per year shall be added for each year of service in the profession for a period not to exceed five years.

The New York State law, which became effective on August 1, 1923, provides that the salary for teachers of kindergarten and first to eighth-year grades shall be \$800 the first year, with an annual increment of not less than \$75, the number of annual increments not less than eight; and for high-school teachers, \$900 the first year, with an annual increment of not less than \$75, and the number of annual increments not less than eight.

#### Community Center Activities in Old and New Schools

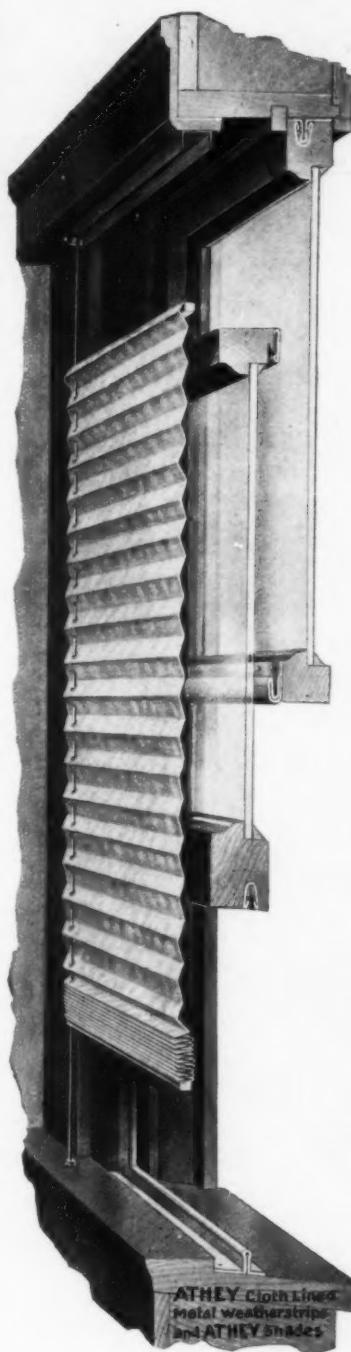
"New schools can and ought to be planned so that the activities of the recreational department will not seriously interfere with the activities of the educational department, and many old schools can, at a small cost, be made adaptable to the use of both departments if careful study is made of the factors concerned.

"In planning a school to be used as a community center, two cross sections of leisure-time activities must be given some consideration: First, organized and unorganized activities; second, educational, educational and recreational, and recreational activities. The organized activities are those that take on a definite form of membership with a definite purpose in view, such as classes and clubs. Entertainments, lectures, dancing, and games fall into the category of unorganized activities.

"People do not spend all of their leisure time in the so-called play activities. Many prefer to spend part of their leisure time in study; hence a community center should conduct classes in English for foreigners, citizenship, parliamentary law, etc., and promote clubs, such as literary and debating, all of which may be termed the educational activities of a community center. Bands, orchestras, choruses, and library reading have great recreational interests as well as educational values. Dancing, entertainments, games, athletics, billiards, etc., may be classed as largely recreational.

#### *Must Recognize Cross Sections*

"A community-center program to be successful must recognize, as we stated before, the two cross sections of recreational activities, and then attempt to furnish as many as possible, if not all, of the activities that can be enumerated under each classification. Too many school authorities have granted the use of the schools for games, such as basket ball and indoor baseball, and then stopped, believing they have then satisfied the needs of the community. Then there are other school officials who permit the use of the school for only organized activities, such as clubs, thus barring the boys and girls who do not belong to a club or who do not care to. It is this type of youth who is in the most danger, and it is imperative that a community center should supply some activities that he or she will enjoy, with the aim in mind of leading as many of them as possible into club activities. One is a stepping stone to the other."—H. O. Berg, *Bureau of Education, Physical Education Series No. 6.*



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## News of the Month

### Confusion Exists Concerning Levels in Training Courses

A tendency to confuse the informing and appreciation levels with the doing level in training courses for conference leaders, has resulted in the turning out of individuals with much enthusiasm but little ability "on the job," the Federal Board for Vocational Education has just stated. The total time required in a course to give adequate training up to the doing level is often underestimated, according to the board.

Any course designed for the training of conference leaders must recognize the necessity for providing in some way for meeting the following conditions:

1. The selection of candidates on the basis of natural and mental qualifications and experience.
2. The utilization of functioning content.
3. The carrying of the group through an informing stage.
4. The carrying of the group through an appreciation stage.
5. The carrying of the group through a training period that will develop actual doing ability.
6. The provision for a follow-up or extension service that will assist members of the group to progress further in doing ability after they have actually taken up the work of conference leading.
7. The providing of competent individuals to take charge of the work of training conference leaders.

### Plan Vocational Education Program for New Jersey County

The board of education, Camden County, N. J., in its new program for vocational education, plans to serve both the youth and the adults of the community either in preparing persons for efficient entrance into an occupation or increasing the efficiency of those already employed. The program includes pre-employment training for boys desiring to devote one or more years in preparing for an occupation and extension training for junior and adult workers desiring to receive instruction to supplement the skill and knowledge acquired on the job.

The program follows a survey and investigation made to determine the types of courses needed to supply trained workers for the various occupations of the county. Advisory committees have been organized for each trade to be taught in the school, and each committee has made a study of the needs for training in its respective field in order to assist the board of education in determining the courses to be offered and the types of shops and equipment needed to give effective instruction in the courses. Each of the advisory committees is composed of representatives of employer and employee associations and representatives of industrial plants.

A vocational school is being built in Pensauken town-

ship at a cost of approximately \$1,000,000 and will be available for occupancy in the fall. The plant consists of an administration building and five two-story shop buildings connected to the main building by an arcade. The administration, or main building, provides space for the offices of the board of education, the directors, the classrooms, the drafting rooms, the library, the cafeteria, the gymnasium, the swimming pool, and the first-aid and medical room.

The shop units are sixty by one hundred feet and provide space for giving instruction in auto mechanics, cafeteria management, drafting, heating, and steamfitting, painting and decorating, printing, structural ironwork, agriculture, electrical work, machine shop practice, plumbing, sheet-metal work, wood working, mathematics, and estimating.

The board of education has received the co-operation and assistance of public-school officials and teachers, the labor organizations, and industrial plants in planning and developing the program for vocational education. The vocation division of the New Jersey State Department of Education has also co-operated with the board in examining the prospective instructors for the school and in carrying on teacher-training courses to prepare instructors for positions as teachers in the school.

### Advocate Well-Equipped House for Home-Making Instruction

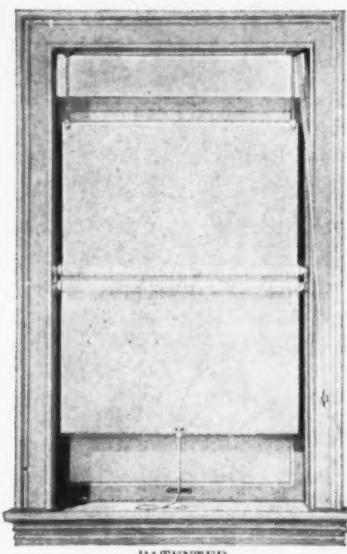
A house or bungalow, equipped as a real home, is far superior for home-making instruction than two rooms in the traditional schoolhouse, according to the Federal Board for Vocational Education.

A "home economics bungalow," the board states, affords the managerial problems "that are so difficult to find in the usual department," and the work performed carries over more readily into the girl's own home. The board points out that the buildings may also serve as school or community social centers. It states that the building of a cottage is an economy over the cost of construction of two rooms in a brick schoolhouse.

A house or bungalow that in many respects is just like a real home is the ideal place for the home-making instruction. Nowhere else can the atmosphere as nearly approach that of home as in such a house which the girls take much pride in calling "our home economics cottage." The girls undertake to make these cottages attractive, both outside and inside.

In a house or cottage not only can the physical aspects of a real home be included so that the girl has something she can imitate in her own home, but the home atmosphere is much more nearly approached. All the rooms can be well lighted and so arranged as to be best adapted to the work to be done.

It is not desirable to build too expensive a type of building for the home economics cottage. The school of home making should not be too elegant for its standards to be



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CALIFORNIA

## News of the Month

within the reach of a large number of the homes of the community.

Because of the wide variation in building costs in various sections of the country, it is impossible to give figures on the cost of home economics cottages.

It is more satisfactory to plan and build the home economics cottage, but an old house can be renovated and used to good advantage for such purposes.

### Detroit Schools Increase Use of Films

Films were used in seventy-six elementary schools, nine intermediate schools, and seven high schools in Detroit as part of the visual education work during the school year 1926-27. Three thousand miles of educational films were used, seventy reels were added to the library, and 2,000,000 feet of film were inspected by the department of visual education. During the year fifty motion picture screens, ten luminex screens, ten opaque projectors, and forty stereopticons were purchased and installed. Slides to the number of 130,000 from the department library were used in the schools.

### Chicago Schools Participate in Boys' Week

Representing the first active participation of the Chicago public-school system in Boys' week for several years, more than 20,000 boys—the entire R. O. T. C. unit and members of the safety patrols of public and private schools—took part in a military and safety-first tournament, May 18, in the Soldiers' Field stadium, Chicago. More than 75,000 school children from the high schools and upper elementary grades were dismissed from classes to attend the tournament. Among the features of the program were contests in the nature of drills, marches, and intricate formations, and high-school band competition and first aid demonstrations.

### Compare Foreign and United States Student Populations

In all the world outside the United States, according to estimated figures compiled by the Bureau of Education, and announced May 4, there are about 950,000 students enrolled in institutions of higher education of college or university grade. In the United States itself there are 1,000,000 students so enrolled, including teachers colleges, it was said. Thus the United States would seem to have more students in college than all the rest of the world combined.

A rough estimate of the number of pupils in secondary schools of high-school rank outside the United States places the figure at 5,700,000. The pupils in high schools in the United States number some 4,200,000.

It is estimated that there are 105,000,000 students in schools of all kinds in the world outside the United States

and 29,000,000 inside the United States. Thus the United States provides more than one-fifth of the students of the world, while in population it is but one-fifteenth that of the world.

According to the best estimated figures available it appears that the United States spends as much money on education as does all the rest of the world combined. Because her population is scattered over a great area education is more difficult than if its citizens lived in dense communities such as exist in many European countries. American education is simplified, on the other hand, by the fact that its education is all given in one language, while in many countries teaching must be in a number of languages.

### Federation of Labor Fights Seattle Ban on Teachers

Acting on reports that the Seattle, Wash., school board required teachers seeking employment to sign contracts declaring they were not members of the American Federation of Teachers, William Green, president of the American Federation of Labor, recently instructed union officials there to "use every honorable means" to defeat the action of the board.

The communication to Charles Doyle, secretary of the Seattle Central Trades council, stated that President Green had been advised that the board demanded that each teacher sign a contract saying he or she was not a member of the teachers' union and would not become a member of the organization during the term of the teaching contract.

Green asked Doyle to forward him a full report of the situation.

### Favors Abolishing Classroom Recitations

Abolition of classroom recitations for many college students and the substitution of supervised independent study, was advocated by Dean L. P. Sieg of the University of Pittsburgh, in outlining a situation which he holds would aid the work being done in American universities. Classrooms, Dean Sieg declared, are "vastly overrated" as a means of primary education. A method that would leave the student free to pursue his work independently with the guidance of trained instructors would be preferable, he stated.

The proposal embraces close supervision of freshmen during the first few weeks of their study. Those found to be capable of independent work would be placed in a separate group, which would make periodic reports to an instructor for his check upon their progress.

"Passing to the sophomore year, if a student knows what he wants to do, let him start upon what might be called his major subject," Dean Sieg stated. "This will occupy his central interest throughout the remainder of his college work. He will move along just as fast and as far as he can go."

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## News of the Month

### Public-School Business Officials' Meeting Stresses Research

A research committee for the study of business and administrative methods in public-school systems was appointed at the seventeenth annual meeting of the National Association of Public-School Business Officials, held at Denver, June 4-8. The committee is to be headed by George F. Womrath, business superintendent of the Minneapolis public-school system, and it is expected that very valuable data will be collected for the report to be made at the next meeting, which will be held in Columbus, Ohio.

The entire tenor of the meeting was toward research into public-school methods. Several of the speakers emphasized this point and President H. L. Mills, business manager of the board of education, Houston, Texas, stressed this point in his presidential address.

The meeting opened June 4 with a reception of delegates by the local committee and a get-together dinner at which all past presidents, the executive committee, and the delegation that had already arrived, were present. The first official meeting was held Tuesday morning, invocation being pronounced by Dr. George Gilmour, pastor of the First Unitarian Society, Denver, and this was followed by community singing led by J. C. Kendel, director of music, Denver Public Schools, Denver. Three addresses of welcome were given; one by Benjamin F.

Stapleton, mayor of Denver, by F. H. Taylor, president of the board of education, Denver, and Tyson Dines, president of the Denver Chamber of Commerce. These welcomes were responded to by F. B. Edmunds, chairman of the finance committee, board of education, Toronto, Canada. Following this President Mills delivered his address. Secretary John S. Mount of the state department of education, Trenton, N. J., read several communications and gave his report which was followed by the report of the treasurer, also of the state department of education at Trenton, N. J. A list of new members was then presented and elected to the association.

#### *Research and the Business Department*

The first paper to be read at the meeting was by Dr. George Willard Frasier, president of the Colorado State Teachers College, Greeley, Colo., and he chose as his topic, "Research and the Business Department of a Public-School System." This was the keynote of the meeting and his paper was very well received. The only other paper presented on Tuesday morning was by Miss Frances Peirce, clerk of the board of education, Westfield, N. J., who spoke on "The Responsibilities of the School Board's Secretary."

The afternoon session started promptly at 2 o'clock when Raymond Courtney, president of the board of education, Tulsa, Okla., spoke on "The Business Department as Viewed by a Board of Education Official." This was followed by Dr. John Guy Fowlkes of the University of Wisconsin, whose paper, "Some Needed Research as May Arise in the Business Departments of Public-School Systems," was given as a corollary to the paper presented by Dr. Frasier. Both papers emphasized the need of research and Dr. Fowlkes pointed out many subjects that should be studied by the association. The third paper of the session was given by T. W. Vinson, secretary of the National School Supply Association, Chicago, on "Commercial Research for Service to Schools." Mr. Vinson held the attention of those present for more than an hour and his paper evoked so much interest that some time was spent by him in answering questions on all phases of the subject. The last paper of the session was given by George Howe, business manager of the board of education, La Crosse, Wis., on "Tuition Charges and Collections from Outlying School Districts." Mr. Howe told of the laws governing this subject in Wisconsin and outlined the methods that were pursued in La Crosse in following out those laws.

#### *Round Tables Prove Beneficial*

Seven round tables were held in the evening in various parts of the hotel, all of them being very well attended and proving fruitful to the business managers attending them. Architectural service, engineering service, the selection and training of school custodians, lunch rooms, school supplies, the business departments of schools in smaller cities, and finances, were the topics discussed. A dinner, attended by about fifty of those present at the meeting, was given on Tuesday evening at which time Mr. Vinson presided and introduced as the toastmaster John B. McElroy, Chicago. Mr. McElroy called upon



*Dr. John Guy Fowlkes, who pointed out some needed research.*



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President Mills; George W. Grill, clerk and treasurer of the Lakewood Public Schools, Lakewood, Ohio; Mr. Heintzman, Denver; and John A. McNamara, of The NATION'S SCHOOLS for remarks.

The Wednesday morning session opened with a paper by Henry P. Abbott, member of Commercial Purchasing Agents' Association, Denver, who spoke on "Purchasing—From the Standpoint of a Commercial Purchasing Agent," and this was followed by a resume of the public-school building program of San Francisco, Calif., given by D. P. Hardy, assistant superintendent of schools of San Francisco. Dr. G. W. Gerwig, secretary of the board of education, Pittsburgh, Pa., spoke on "The Platoon System of Schools from the Standpoint of Finance," and Joseph Miller, Jr., secretary of the board of education, New York City, told of the secretary's duties in a large area. The last paper of the session was given by W. E. Record, business manager, board of education, Los Angeles, Calif., on "The Transportation of Public-School Children." Mr. Record told of the two methods used in California, the expense involved, the bus schedules in practice, and other interesting data on this important subject.

### *Visit Scenic Beauties of Denver*

There were only three papers on the Wednesday afternoon program, the first being on "Public-School Cafeterias," by E. M. Brown, supply commission, board of education, St. Louis, Mo. "Selling—From the Seller's Viewpoint," was the paper presented by W. D. M. Simmons, New York City, and "The Purchasing of School Supplies," that given by J. S. Mullan, secretary of the board of education, Rochester, N. Y. The remainder of the afternoon was spent in a trip to Lookout Mountain and other points of interest in the Rocky Mountains near Denver.

Thursday morning's session was opened with a paper by Dr. A. L. Threlkeld, superintendent of schools, Denver, on "The Business Department of a Public-School System as Viewed by a Superintendent of Schools." Dr. Vern O. Knudsen, of the University of Southern California, Los Angeles, read a paper on "Acoustics in School Buildings." Phillip Brante, superintendent of custodians, board of education, St. Louis, Mo., told of custodian service for public schools. Thursday afternoon was spent in a trip around Denver visiting most of the newest schools, the trip ending at one of the senior high schools at which time a banquet was given and several speeches were made.

### *Stress Architecture in Final Session*

The last session on Friday was given over to architectural subjects and reports of committees of the association. Frank Bruce, editor of the *American School Board Journal*, read a paper on "Bonded Indebtedness for School Systems," which was very well received.

George King of Salt Lake City, Utah, was elected president for the coming year, C. E. Cyril Dyson of Toronto, Canada, was elected vice president, Mr. Mount was re-elected secretary and Mr. Huston was re-elected treasurer. Four directors for various parts of the country were

elected as follows: North, H. N. Morrill, Grand Rapids, Mich.; South, R. W. Adkisson, Okmulgee, Okla.; East, George S. Snaman, Pittsburgh, Pa.; West, W. E. Record, Los Angeles, Calif. Commercial exhibits were endorsed and Columbus, Ohio, was chosen for the next meeting.

## Columbia University Offers Course in Safety Education

A course in safety education has been announced by Teachers College, Columbia University, for the summer session, 1928, it has just been stated orally at the Bureau of Education.

The course is designed for superintendents, supervisors, principals, and teachers, and will be given by the elementary supervisor in schools of Springfield, Mass., who is consultant for the education division of the National Safety Council.

## New York State Offers Twenty-Five Vocational Scholarships

The New York State Department of Education has recently offered twenty-five vocational scholarships of \$1,000 each to men and women with the requisite trade and technical training who desire to enter the teaching profession. Persons who are awarded these scholarships and who complete satisfactorily the prescribed one-year residence course in industrial teacher training at the Buffalo Normal School, Buffalo, N. Y., will be given a life license to teach their respective subjects in the public schools of New York State.

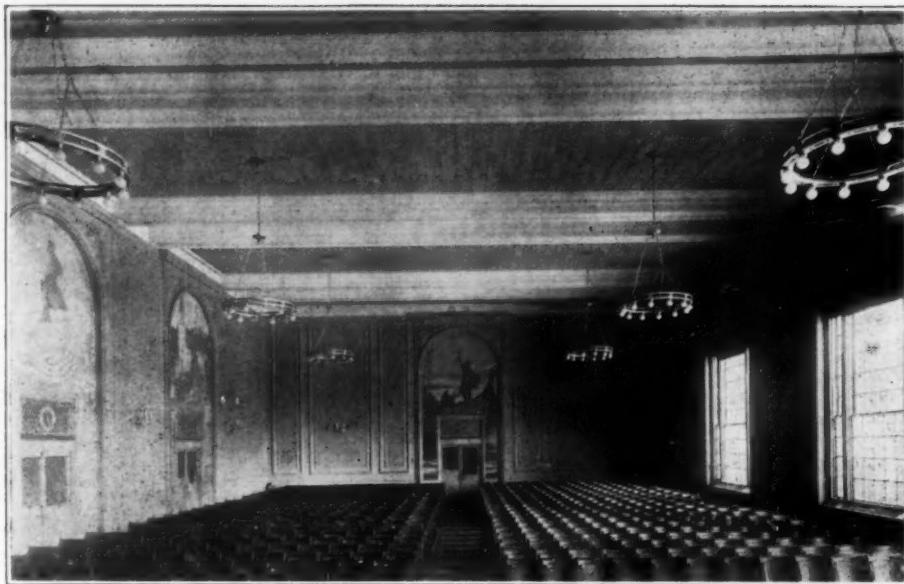
## Coolidge Speaks at Phillips Academy Sesquicentennial

Extensive delegation of power characteristic of existing Government provides the constant danger that the average citizen may take too much for granted, President Coolidge declared, May 19, in an address at Andover, Mass. The President, who spoke on the occasion of the sesquicentennial of the founding of Phillips Academy, emphasized the importance of steady interest in governmental affairs and of education in stimulating that interest.

"Because the affairs of his country have been progressing satisfactorily," Mr. Coolidge said, "the citizen may think nothing can change their course. Such is not the case. When the country makes progress it is because some one gives it careful attention and direction, and because the people are contented, industrious, and law-abiding, and as a whole are discharging their duties of citizenship."

Referring to the position of the secondary school in the scheme of education, the President expressed the opinion that sufficient emphasis had not been placed on their needs. After all, he said, they furnish the material that goes into the higher institutions and deal with younger and more plastic material.

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**[** Auditorium, Waltham High School, Waltham, Massachusetts. Acousti-Celotex, applied to the ceiling, kills echoes and reverberations, thus making school operettas more enjoyable. **]**



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## News of the Month

### Secondary-School Standards Need Clarifying

Existing standards for secondary schools need clarifying, says E. D. Grizzell, chairman of the Commission on Secondary Schools of the Association of Colleges and Secondary Schools of the Middle States and Maryland.

In a statement just made public by the Bureau of Education, Mr. Grizzell points out the differences between standards adopted by the four regional associations of the country. He suggests that recommendations be separated from standards, that policies and regulations be stated separately, and that interpretations of standards be given.

The New England Association of Colleges and Secondary Schools was organized in 1885. Although it is the oldest of the four regional associations, it is the only one that has not established standards for secondary schools and higher institutions. The North Central Association was the first to formulate such standards. These standards, established in 1905 and modified from time to time, have influenced to a large extent the standards established by the associations in the Southern, Northwest, and Middle States.

In comparing the standards for secondary schools of these four associations it is apparent that there is great similarity in features and relationships. The features and relationships, concerning which standards have been established by one or more of the associations, are: (1) Requirements for graduation; (2) instruction and spirit; (3) minimum number of teachers; (4) qualifications of teachers; (5) salary schedule; (6) teaching load; (7) program of studies; (8) buildings, equipment, etc.; (9) laboratory facilities; (10) library facilities; (11) records; (12) pupil load; (13) annual report; and (14) term of accreditation.

Of the first ten all are common to the four sets of standards, except that the program of studies is treated indirectly or by implication in the standards of the Northwest and Southern Associations, and the salary schedule is not mentioned in the standards of the Northwest Association. In addition to these ten items, the North Central and Northwest Associations have standards for records and pupil load. These matters should be considered sufficiently important to be included in the standards of the Middle States and Southern Associations.

### Vocational Agriculture Program Needs Expanding

There is a general need in all Middle Western states for expanding the vocational agricultural education program, it was concluded at the eleventh annual conference of state directors, state supervisors, and members of teacher-training staffs in vocational agriculture in that region, the chief of the Agricultural Education Service, Federal Board for Vocational Education, Dr. C. H. Lane, has just stated.

It was also concluded at the conference, Dr. Lane said, that many of the states are approaching the limit in the use of their available funds.

The conference was held at Des Moines, Iowa. The states represented were Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, and North Dakota.

The program dealt with problems of training teachers of vocational agriculture as it relates to technical courses, professional educational courses, humanistic courses, related courses, and itinerant and teacher training.

One day was given over to a discussion of accomplishments in the region touching such matters as student organizations and their purpose; thrift organizations for agricultural students; community, county, and state agricultural contests; the annual state conference of vocational teachers, its purpose and accomplishments; and research by teacher-training departments in the land-grant colleges and universities.

### Colleges Plan Summer Sessions for School Administrators

Of interest to the educator who chooses to spend his summer in special study, in acquiring new and helpful ideas in contact with other educators, is the announcement that the leading universities of the country are planning their summer courses with the needs of the school administrator definitely in mind. These courses are designed for school executives, supervisors, principals, college teachers, research workers, and classroom teachers with intensive work for each in his respective field. And there is a university specializing in this work almost literally in the neighborhood of every school man who plans to utilize the summer to the best advantage.

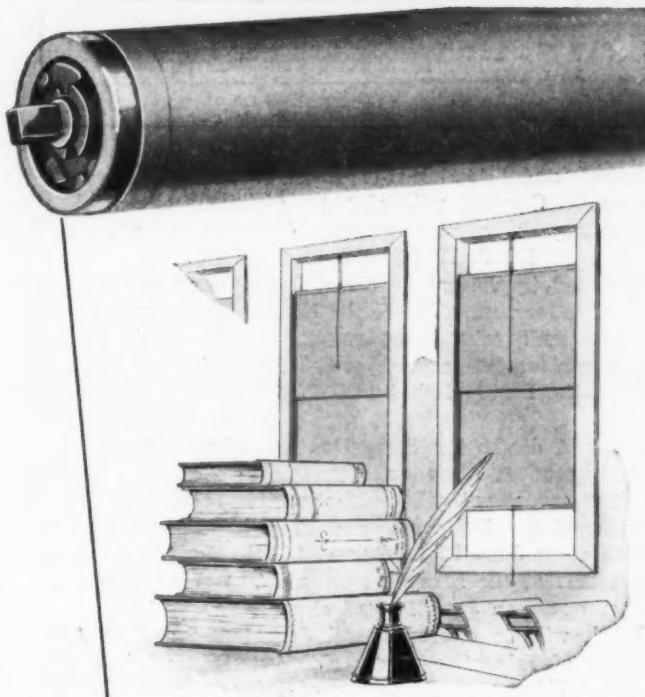
The University of Vermont begins its summer session July 5. Courses in the Department of Education will be offered under the supervision of Dr. Bennett C. Douglass for principals and superintendents who desire to take fundamental or specialized courses in the fields of educational administration and secondary education.

A full program is offered at the University of Notre Dame, South Bend, Ind., in the School of Education, beginning June 26 and continuing until August 8. The Rev. W. F. Cunningham, C.S.C., is the director of the School of Education.

The summer school at Harvard, known as the Summer School of Arts and Sciences and of Education, begins July 2. Among the courses offered in the graduate field of education are "Educational Institutions and Practices," "Individual Development and Education," "The Philosophical Bases of Education," "The Systematic Study of a School System," "School Plants, School Finance, and Business Administration," and others dealing with elementary and vocational education and educational measurements and statistics.

The summer session at the University of California, Berkeley, continues from July 2 to August 11 and the University of California in Los Angeles will hold its summer courses at the same time. Dr. Harold J. Bruce is the dean in charge.

Dr. Allen S. Whitney, dean, will direct the study in the School of Education at the University of Michigan during the summer session, June 25 to August 17. The

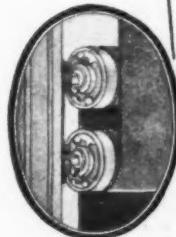


## Where Health is as Important as Learning

MORE and more, school officials are recognizing the fact that proper classroom health is equally as important as any course in the curriculum.

Perhaps this is the reason why so many leading schools the country over are equipped with Hartshorn Shade Cloths mounted on Hartshorn Rollers. With quiet, smoothly-running Hartshorn Rollers, regulating classroom light and ventilation is just a matter of touching the shade cord. Instant response, trouble-free service, low maintenance costs—these are credentials that have admitted Hartshorn Shade Rollers to classrooms for nearly three-quarters of a century.

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## News of the Month

school is organized under seven departments: History and Principles of Education; Educational Administration and Supervision; Educational Psychology, Mental Measurements and Statistics; The Teaching of Special Subjects; Vocational Education; Physical Education, Athletics, and School Health; and Public Health Nursing. The instruction includes a large variety of undergraduate and graduate courses adapted to the needs of teachers, supervisors, principals, and superintendents.

Stanford University, California, has a full summer quarter equivalent to any of the other three quarters—autumn, winter, and spring. There is also a six weeks' session that starts June 21 and ends August 3. The School of Education has organized its work into four divisions: Graphic Art, Education, Educational Psychology, and Teacher Training, and courses of interest to principals, supervisors, superintendents, counsellors, directors of research, and teachers of education are offered. Dr. Ellwood Patterson Cubberley is the dean of the summer quarter.

### *Courses at the University of Illinois*

Dr. Charles Ernest Chadsey, dean of the College of Education, will direct the summer session at the University of Illinois, Urbana, June 18 to August 11, and in addition will personally offer a course in Educational Administration, a graduate course, and graduate thesis courses. Other courses offered in the College of Education include: "Supervision of Secondary Education," "Junior High-School Procedures," "High-School Curricula," "The Construction and Use of Examinations," "Curriculum Construction," "Public-School Finance," and "Current Tendencies in Education."

The Department of Education at the University of Chicago, under the direction of Dr. Charles H. Judd, is offering courses covering all of the subjects in which it administers courses during the year. A special series of courses has been organized for college and university administrative officers, in addition to those planned for supervisors and administrators in the public-school field. The following courses should be of especial interest to educators: "The Supervision of the Teaching Staff," "Class Organization, Management, and Testing in Junior and Senior High Schools," "Experimental Education," "Constitutional and Legal Basis of Public-School Administration," "Duties of City School Superintendents," "Organization and Administration of Normal Schools and Teachers Colleges," "Problems of Deans, Registrars, Other Administrative Offices, and Faculty Committees," and "Industrial Education." The summer quarter is divided into two terms, the first term beginning June 16 and ending July 25, the second term beginning July 26 and ending August 31.

### *Pennsylvania Stresses Administration*

School administration will be stressed in the School of Education at the University of Pennsylvania during the summer quarter and a variety of courses attractive to the administrator will be offered. In this connection the following courses are scheduled: "Problems of the School Principal," "Educational Measurements," "School Administration," "Financial Aspects of Educational Adminis-

tration," and "Research Work in Educational Administration." Courses will also be given in the field of elementary education, secondary education, and vocational education. Dr. J. H. Minnick is the dean.

Included in the rather diversified offering of the College of Education, Ohio State University, Columbus, for the summer quarter is a sequence of courses built around the demonstration school that the college is conducting to exhibit the Dalton Laboratory Plan in grades 4 to 9 inclusive. Miss Helen Parkhurst, originator of the Dalton Plan, will direct the demonstration school. Those who elect to study the Dalton Plan will also carry a special seminar course with the subject-matter specialists on the faculty of the Dalton School. The school will be conducted from June 25 to August 20, thus overlapping the two terms of the summer session. The summer quarter proper opens on June 19 and closes August 31.

Work will be offered in all departments: Fine Arts, History of Education, Industrial Arts-Education, Music, Physical Education, Principles of Education, Psychology, School Administration, and Vocational Education. As in past summers the regular faculty of the college will be augmented by the addition of leading educators from other institutions. The different departments will offer more than 200 courses. There will also be offered the extensive lecture series that was inaugurated during the summer of 1927. These lectures, supplementing as they do a college program especially designed to suit the needs of classroom teachers, supervisors, principals, superintendents, and college and normal-school teachers, provide the student with an opportunity to make contacts with members of the faculty and visitors to the campus who have interests in fields other than education.

### *Rural Education at Cornell*

The work in education during the summer at Cornell University, Ithaca, N. Y., is arranged under the general auspices of the Division of Education and divided between work given by the Department of Education in the Arts College, and the Department of Rural Education in the State College of Agriculture. The combined faculties of these two departments involve a faculty of sixteen professors and instructors in addition to specialists who are giving work in special methods of subject-matter instruction. The courses cover a wide range with special attention given to work in the secondary school and in supervision and administration. Dr. R. H. Jordan is chairman of the summer session.

The summer session of the University of Wisconsin, Madison, will begin on June 25 and end on August 3. Special nine-week courses in the Graduate School will begin on June 25 and end on August 24. The School of Education is planning courses of unusual interest for teachers in colleges, normal schools, high schools, agricultural schools, and technical schools. Teachers, supervisors, principals, and superintendents of grade and high schools will find a program of more than forty-five courses covering psychology, school supervision, school administration, technique of instruction, vocational education, and the like. Among the outstanding courses to be given are: "Administration and Supervision of Rural Education," "School Building Problems," "The Part-Time School and

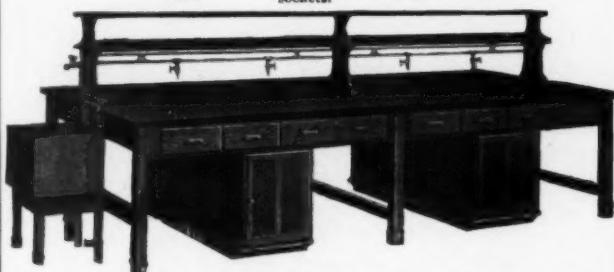
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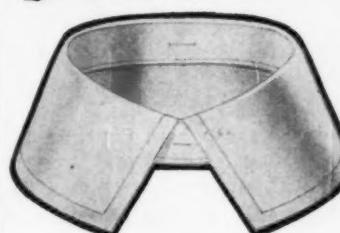
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## News of the Month

**Its Problems," "City School Administration," "Organization and Administration of Elementary Schools," "Curriculum Construction," and "Business Elements of Educational Administration and School Finance."** Dr. Willis Lemon Uhl is the director of the School of Education.

The summer quarter at the University of Virginia, Charlottesville, is an integral part of the school year and begins June 18. It is divided into two terms, the last term ending September 1. In the Department of Education many professional courses for elementary- and high-school teachers that are not offered in the regular session are given to meet certificate requirements. Courses in administration, organization, and supervision will be of especial interest to those whose work lies in those fields. More than sixty-five educational courses will be given. Dr. Charles Gilmore Maphis is dean of the summer session.

### **Vandals Loot Three Chicago High Schools**

Vandals wrecked and ransacked three Chicago high schools during the week end, May 19-20, damaging equipment, scattering records, and looting office and cafeteria strong boxes. The damage to the schools, the Lane Technical High School, the Bowen High School, and the Tilden Technical High School, all located in different sections of the city, amounted to approximately \$5,000.

At the Lane Technical High School the vandals entered through a rear window, took crow bars and axes from an engineering room, and ransacked the entire six-story building, smashing window panes, tearing desks loose from floors, and scattering school records. Pupils' lockers were pried open and the contents strewn about the school corridors. Dishes were smashed in the school lunchroom and stoves were broken. Radio equipment and band instruments were destroyed and attempts were made to break into the school safe.

Frank K. Gerty, school inspector, whose department is conducting the investigation, stated that "minor acts of vandalism in the schools are usually committed by boys who find a thrill in the petty destruction of property;" but he was convinced that the looting in the three schools was the act of individuals outside the school system.

### **Plan for American Education Week, November 5-11**

The American Legion, the National Education Association, and various other organizations are aiding in the preparation of programs for American Education Week, November 5-11. The purpose of this week is to acquaint the public with the work of the schools, with their ideals, their achievements, and their needs. The aim is to have every parent visit his child's school at least once during the week. Evening sessions may be substituted for afternoon sessions on certain days.

The program is intended to emphasize each of the cardinal objectives of education: Health; worthy home membership; mastery of the tools, techniques, and spirit

of learning; faithful citizenship; vocational and economic effectiveness; and wise use of leisure, ethical character.

Monday, November 5, is Health day; Tuesday is Home and School day; Wednesday is Know Your School day; Thursday is School Opportunity day; Friday is Citizenship day; Saturday is Community day; and Sunday, November 11, is Armistice Day.

### **High-School Pupil Councils Improve Relations**

A poll of high schools throughout the United States shows that pupil councils are quite general among them, and a study of their activities leads the Bureau of Education to the conclusion that they bring about new and happy relations between the pupil and the teacher.

Two hundred and fifty questionnaires were sent out by the bureau, asking for information on the subject, and 179 schools responded. These replies were from all the states and showed an enrollment of from 500 to 6,000 per school. Of the 179 replies, 123 reported that they have pupil councils, and fifty-six reported none. The length of existence of these councils varies from one to twenty-three years.

There seems to be no direct relation between the enrollment and the number of members on a pupil council. A typical illustration exemplifies this: The Roosevelt High School, St. Louis, Mo., with an enrollment of 2,500 pupils, had a council of 65; while the Paterson High School, Paterson, N. J., with an enrollment of 2,045, had 132 councilors.

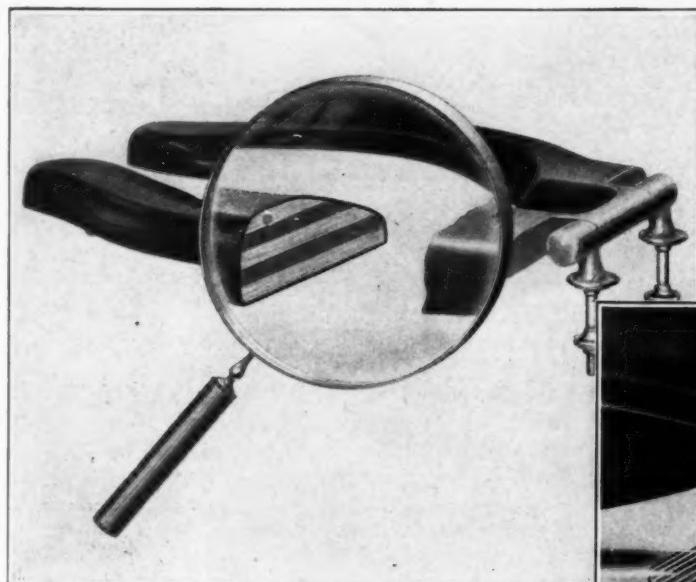
The method of selecting the councilors in ninety-three schools was election by pupils; in the remainder they were chosen in various ways. The meetings of sixty-three of the councils, or more than half of those reporting, were held during school hours.

#### **Various Powers Granted Councils**

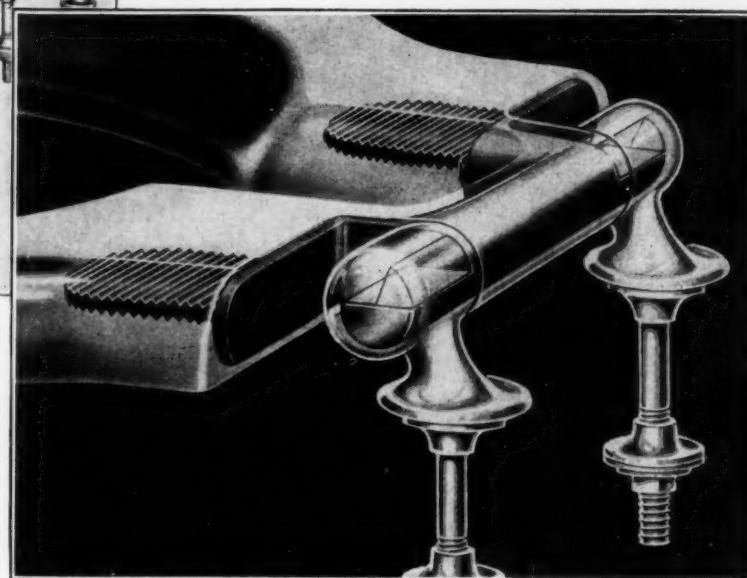
As to the powers granted the councils, twenty-six regulated extracurricular activities; seventeen controlled traffic in corridors and lunchroom; seven made rules as to conduct; five controlled study halls; four passed necessary ordinances; three gave athletic and other awards; four controlled social affairs; five controlled discipline; five controlled finances; two prepared the budget for athletics; two took care of the building and property; and one gave merits and demerits, and reduced theft and cheating.

The replies as to definite achievement show a wide range that could not well be tabulated. However, the aims sought by the councils have been accomplished, and all the schools reporting councils were enthusiastic. Among the most important advantages claimed are that the principal by this means keeps more closely in touch with pupils, that the pupil council is a valuable aid in promoting pupil activities and in interpreting and molding pupil opinion, and that it trains pupils in leadership and responsibility. Most principals see some danger and warn against giving the pupil council too much power; discipline especially is one power that ought to be withheld.

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## In the Educational Field

**DEAN MELANCTHON W. JACOBUS** of the Hartford Seminary, Hartford, Conn., for the past twenty-five years, recently tendered his resignation. Other resignations tendered at the same time included that of **PROF. ARTHUR L. GILLETT**, head of the department of philosophy of religion, who has been connected with the institution for the past forty years, and that of **PROF. CHARLES STODDARD LANE**, who resigns as professor of church history after service of fifteen years.

**G. E. CROMWELL**, superintendent of schools, Helena, Ark., recently tendered his resignation, effective at the conclusion of the present school term.

**ALEXANDER CRIPPON ROBERTS** was inaugurated as president of the State Teachers College, San Francisco, Calif., March 30.

**HERBERT LEE**, principal of the Union High School, Livermore, Calif., recently tendered his resignation to take effect at the end of the present school term.

**B. F. MELLOW**, vice principal and athletic coach of the Union High School, Manteca, Calif., for the past four years, recently resigned.

**MRS. CHARLES KIRKLAND ROYS**, executive secretary of the Board of Foreign Missions of the Presbyterian Church, was recently elected dean of Wells College, Aurora-on-Cayuga, N. Y.

**PROF. EDGAR B. SMITH** was recently selected as principal of the Bourbon Township Consolidated School, Bourbon, Ind.

**JOSEPH A. O'BRIEN**, principal of the Grover Cleveland Junior High School, Elizabeth, N. J., recently tendered his resignation from that position, after twenty-two years' service in the schools of that place.

**PROF. A. F. GOLDSMITH**, principal of the Hindsboro school, Hindsboro, Ill., recently tendered his resignation.

**HENRY CLARK**, dean of the school of Education, Furman University, Greenville, S. C., was recently elected president of the department of education of the South Carolina State Teachers Association.

**D. F. MITZNER**, principal of the Bluffton High School, Bluffton, Ind., recently resigned.

**CHARLES E. CONE**, superintendent of schools, Oakesdale, Wash., recently tendered his resignation after five years' service.

**HARVEY C. SABOLD**, principal of the Marcus Hook school, Marcus Hook, Pa., for the past ten years, recently tendered his resignation, effective at the end of the present term.

**ELMER C. JONES**, director of adult education in schools, Long Beach, Calif., was recently elected president of the California Association of Principals of Evening High Schools.

**W. A. KNAPP**, principal of the Elim School, Hilmar, Calif., has recently resigned that position to become assistant county superintendent of schools, Merced county, Calif.

**DR. CLARENCE E. PARTCH** was recently appointed dean of the school of education, Rutgers University.

**W. L. STUCKEY**, superintendent of schools, Huntington Park, Calif., for the past ten years, recently tendered his resignation, effective at the conclusion of the present term.

**JOHN H. BREWER**, formerly principal of the Whittier school, Peoria, Ill., was recently chosen principal of the Peoria High School, succeeding **R. R. COMWELL**.

**HENRY T. MOORE**, president of Skidmore College, Saratoga Springs, N. Y., was recently elected dean of the school of education, University of Michigan.

**JOHN PAUL JONES** has been appointed dean of the new Jackson Junior College, Jackson, Mich., which is to open in the fall.

**A. P. BURROUGHS**, superintendent of schools, Suffern, N. Y., for the past seventeen years, was recently elected superintendent of schools, Haverstraw, N. Y., succeeding **JOHN T. KAEMMERLEN**.

**GRACE STADTMULLER** has been named headmistress of the new Huntington private school, Huntington, N. Y., which will be opened in October.

**F. H. WARREN**, superintendent of schools, Fostoria, Ohio, for the past eleven years, recently tendered his resignation, effective at the end of the present school term.

**FRANCES HOPKINS** was recently appointed to succeed **H. L. Durfee** as superintendent of schools, Lyons, Mich.

**E. R. UTTER**, principal of the day division of the Modesto High School, Modesto, Calif., recently resigned from that position to become principal of the evening division.

**DR. SAMUEL BLACK MCCORMICK**, chancellor emeritus of the University of Pittsburgh, died recently.

**PAUL FURGESON** was recently elected principal of the Kent High School, Kent, Wash., succeeding **A. B. PHILIPS**, resigned.

**HARMON GREGORY**, principal of the Niagara Falls continuation school, Niagara Falls, N. Y., was recently appointed principal of the new Trott vocational school, which will be opened in Niagara Falls in September.

**FREEMAN M. EAKIN**, principal of the Mendocino High School, Mendocino, Calif., was recently appointed principal of the Santa Paula High School, Santa Paula, Calif., succeeding **FRANK JONES**, who recently tendered his resignation after fifteen years' service.

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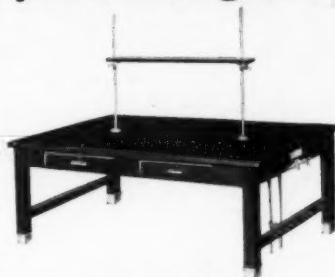
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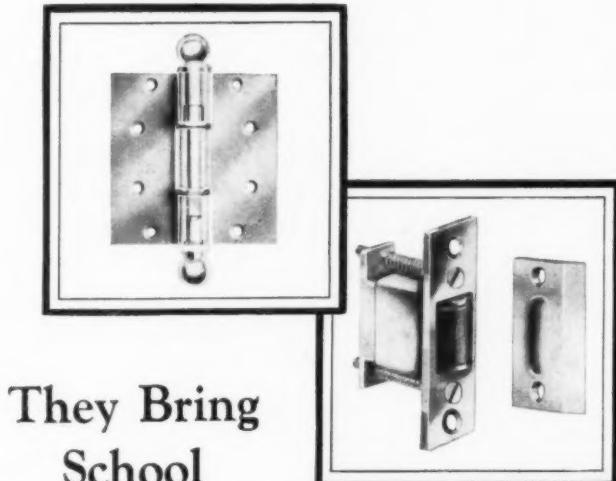
C. G. Campbell, Treas. and Gen. Mgr.  
228 LINCOLN ST., KEWAUNEE, WIS.

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NO. 699 PHYSICS TABLE  
A simple, popular Kewaunee design, with gas connections and a wood crossbar.



## They Bring School Doors Under Control

This special school hardware by McKinney consists of a hinge providing constant friction control, (eliminating free-swinging, slamming doors); a Noiseless Roller Catch, taking the place of a metal latch; and a Rubber Door Stop acting as a cushion.

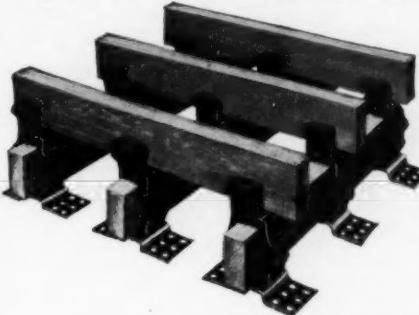
The Noiseless Roller Catch

requires no knob to retract the bolt to open the door. A push on the door is all that is necessary. Most class room doors open into the halls. The McKinney Catch therefore makes an ideal safeguard against fire and panic dangers. Write for details to McKinney Mfg. Co., Pittsburgh, Pa.

**MCKINNEY**  
**friction control**  
**HINGES**

## NOISE HAS NO FRIENDS

Modern schools are now taking every precaution to rid class rooms of unnecessary distracting noises. Send for interesting engineering data.



Schools  
Colleges  
Gymnasiums  
Hospitals  
Theatres  
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Clubs  
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### CEILINGS, FLOORS and WALLS

Hundreds of the most modern buildings noise-protected with

**STEVENS  
Sound-Proof  
Engineering**

Our engineering department will cheerfully advise with you, without the least obligation.

### STEVENS SOUND-PROOFING COMPANY

Consulting Engineers and Manufacturers  
407 So. Dearborn St., CHICAGO

## What else have you to clean?

WHAT else besides floors, walls, woodwork, windows, desks, blackboards, cafeteria and gymnasium equipment? Think of anything inside the school building that ever needs cleaning and you're thinking of a use for Oakite.

This all-purpose material makes light work of every cleaning job. Its remarkable emulsifying action supplants much of the rubbing and scrubbing—the hand labor—necessary with materials of lesser cleaning power. Oakite does most of the hard work itself.

And there is no safer way to do your cleaning. Oakite contains no abrasives, soaps or caustic. It cannot harm the finest or smoothest surface.

Let us send you a practical booklet full of suggestions for doing all summer cleaning better, easier and cheaper. Ask for "Oakite in Schools"—it is yours on request.

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the U. S. and Canada

Manufactured only by

OAKITE PRODUCTS, INC., 28D Thames St., NEW YORK, N. Y.

**OAKITE**  
*Industrial Cleaning Materials and Methods*

## In the Educational Field

JAMES S. HAYES, superintendent of schools, Thermopolis, Wyo., recently resigned to become principal of the Fremont County Vocational High School, Lander, Wyo. He will be succeeded at Thermopolis by R. L. MARKLEY, formerly superintendent of schools, Douglas, Wyo.

DAVIE W. HOPKINS, formerly dean of St. Joseph Junior College, St. Joseph, Mo., was recently elected superintendent of schools, St. Joseph, succeeding CHARLES A. GREENE.

E. G. ARNOLD, principal of the Arnold school, Denver, Colo., died recently after having served thirty-eight years in the public schools of that place.

J. J. DICK, county superintendent of schools, Crawford County, Ohio, for the past two years, died recently.

DR. RAY H. LATHAM, professor of education at Ohio University, was recently appointed president of the Iowa State Teachers College, Cedar Falls, Iowa, succeeding DR. HOMER H. SEERLEY, resigned.

DR. BRADFORD KNAPP, president of the Oklahoma Agricultural and Mechanical College for the past five years, was recently elected president of the Alabama Polytechnic Institute.

RAYMOND B. WALCHER, superintendent of schools, Florence, Kans., for the past two years, was recently elected superintendent of schools, Burlington, Kans.

E. L. NOVOTNY was recently elected superintendent of schools, Junction City, Kans.

E. E. STACKPOLE was recently appointed comptroller of Mt. Holyoke College, succeeding the late WALTER B. ADAMS.

RAYMOND C. PERRUSSEL, formerly principal of the Florence High School, Florence, Kans., was recently elected superintendent of schools, Florence. He will be succeeded by W. B. HUDSON as principal of the high school.

VAUGHN GARRISON was recently appointed principal of the Oxford High School, Oxford, Mich., succeeding HARRY LEONARD.

V. L. BORDEN was recently elected superintendent of schools, Hamburg, Ark.

FRED ADOLPH, principal of the St. Clair High School, St. Clair, Mich., was recently appointed superintendent of schools, Algonac, Mich.

L. E. DUVALL, principal of the Deckerville school, Deckerville, Mich., recently resigned from that position to become principal of the Southwestern school, Dearborn, Mich.

PHILLIP FITCH, assistant principal, North High School, Denver, was recently appointed principal of the Manual Training High School, Denver, succeeding CHARLES A. BRADLEY, who recently resigned after serving in that position since the school was established in 1893.

PROF. C. W. REID, superintendent of schools, Monroe, Ga., for the past nine years, was recently named principal of the new South Fulton High School, East Point, Ga., which will be opened in September.

A. B. PHILLIPS, principal of the Kent High School, Kent, Wash., was recently elected superintendent of schools, Foster, Wash.

H. C. FISK, superintendent of schools, Claremore, Okla., recently resigned to become superintendent of schools, Shidler, Okla.

GEORGE V. STEKETEE was recently named principal of the Vassar High School, Vassar, Mich.

PROF. EARL O. LIGGETT, principal of the Freeport High School, Freeport, Pa., for the past six years, recently resigned to accept a position as supervisor of schools, Bridgeville, Pa.

DR. RICHARD ASPINALL, formerly head of the Iliff School of Theology, Denver, was recently inaugurated as president of Western State College, Gunnison, Colo., succeeding DR. SAMUEL QUIGLEY, resigned.

DAVID ALLEN ANDERSON, president of Kent State Normal College, Kent, Ohio, for the past three years, was recently appointed president of the Northern State Teachers College and Industrial School, Aberdeen, S. D., succeeding HAROLD W. FOUGHT, who recently became president of the Municipal University, Wichita, Kans.

LESTER GOOD, principal of the Kibler school, Kibler, Ark., recently resigned to become principal of the Oliver Springs school, Oliver Springs, Ark.

DR. DOAK S. CAMPBELL, president, Central College, Conway, Ark., recently resigned to become associate professor of college administration, George Peabody College, Nashville, Tenn.

LYLE W. HOLDEN was recently appointed supervising principal, Port Allegany, Pa., succeeding H. R. HOUSE, resigned.

LEROY M. TWITCHELL was recently elected head of the Centre Junior High School, Malden, Mass.

G. H. PARKS was recently named principal of the new Wethersfield High School, Wethersfield, Conn., which will be opened in September.

DR. ANNIE L. MACLEOD, professor of chemistry and director of euthenics, Vassar College, was recently appointed dean of the college of home economics, Syracuse University, succeeding MRS. FLORENCE E. S. KNAPP.

FLORENCE PURINGTON, academic and social dean, Mount Holyoke College, has tendered her resignation, effective in September, 1929. HARRIET ALLYN will succeed her as academic dean, while MRS. ALICE BROWNE FRAME, dean of Yenching College, Peking, will assume the duties of social dean in September.

# Scenery

Asbestos curtains,  
Velour curtains

and

Stage scenery for your  
Auditorium stage.

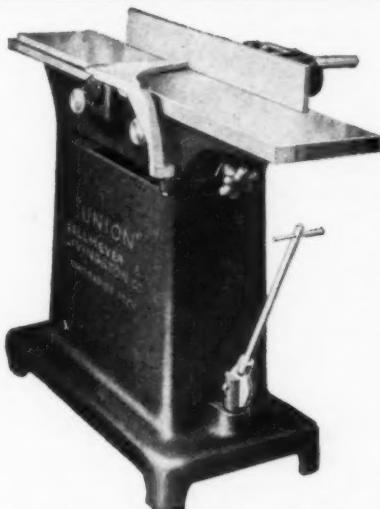
Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

*Write us for further information or request call from our representative.*

**Twin City Scenic Company**

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Minneapolis, Minn.

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## Let Them Learn by Doing

The student can learn much faster if he gets actual experience in modern woodworking practice every time the class meets. This is impossible with big bulky machines. They are too slow and too costly to run. For the same amount of money you can install enough Gallmeyer & Livingston Union machines to give every member of the class an opportunity to learn by *Doing* rather than by watching. In every way they cost less. Truly the ideal machines for schools.

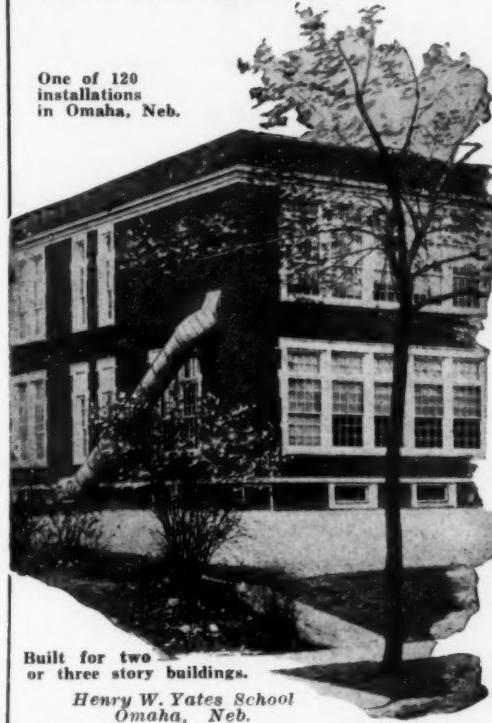
The new eight inch jointer shown above is stripped of all useless bulk and weight, gives maximum speed, and efficiency at minimum cost and is portable, or if you prefer can be installed permanently.

Before you buy get the facts about Gallmeyer & Livingston Union machines. Send for catalog today. It places you under no obligations.

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116 Straight Ave. Grand Rapids, Mich.

**YOU** as a school board member MUST RECOGNIZE YOUR SHARE OF THE RESPONSIBILITY for the safety of the children in case of fire.

One of 120 installations in Omaha, Neb.



Built for two or three story buildings.

Henry W. Yates School  
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It is your duty to know the most certain protection against great loss of life in case of panic and school house fire.

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is the only fire escape with a service record approved by the Underwriters Laboratories.

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## FREE INFORMATION on Motion Pictures for Your School

Up-to-date schools everywhere are using motion pictures—visual education stimulates thought and sustains interest.

We will be glad to send you, free of charge, our illustrated booklet on motion pictures in the school. Tells how motion pictures will aid

you in your work; where good educational films may be obtained; how much projectors cost; which is the best, etc. Includes complete description of the new Acme Projector. If you wish, we will arrange a *free* demonstration in your own school. Mail the coupon today. No obligation.

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Please send me your pamphlet A6 on Motion Pictures in the School.

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## In the Educational Field

**WILFRED F. BEARDSLEY**, principal of the Evanston Township High School, Evanston, Ill., will become principal emeritus at the end of the present school term. **WALTER L. BARNUM** is serving as acting principal.

**C. H. BRYAN**, superintendent of schools, Portland, Mich., for the past nine years, recently tendered his resignation.

**PROF. HARRY HERLING** has been appointed superintendent of schools, Midland, Pa., succeeding **P. C. KETLER**.

**BYRON K. HUNSBURGER** was recently appointed principal of the new Rittenhouse Junior High School, Norristown, Pa., which will be opened in September.

**R. J. KOONCE**, principal of the Yazoo City High School, Yazoo City, Miss., for the past six years, has resigned from that position to accept the principalship of the Clarksdale High School, Clarksdale, Miss.

**ARTHUR B. DOWNING**, principal of the Roosevelt School, Modesto, Calif., for the past nine years, recently tendered his resignation.

**G. A. RUSSELL**, principal of the Vader school, Vader, Wash., was recently re-elected to that position.

**R. B. MARSTON**, superintendent of schools, Sisterville, W. Va., for the past eight years, was recently re-elected to that position.

**WILLIAM F. HEAD**, principal of the Central High School, Kalamazoo, Mich., was recently elected president of the Southwestern Michigan Science and Mathematics Association.

**W. F. HALL** was recently appointed state rural school supervisor of Arkansas to succeed **H. L. TURNER**, resigned.

**J. H. EARPS**, principal of the St. Clairsville High School, St. Clairsville, Ohio, recently resigned.

**W. C. P. MEDDINS**, formerly assistant principal of the Lincoln High School, Tacoma, Wash., was recently appointed principal, succeeding **R. E. COOK**, resigned.

**O. R. BANGS**, formerly superintendent of schools, Warren, Ind., was recently appointed principal of the Allen High School, Bluffton, Ind., succeeding **D. F. MITZNER**, resigned.

**PROF. C. A. MCGINNIS** was recently appointed principal of the Metropolis Community High School, Metropolis, Ill.

**DR. PAUL F. CADMAN**, associate professor of economics, University of California, was recently appointed dean of men, succeeding **PROF. CHARLES G. HYDE**, resigned.

**DR. FRANCIS P. GAINES** was installed as president of Wake Forest College, Wake Forest, N. C., on April 25, succeeding **DR. WILLIAM LEWIS POTEAT**, resigned.

**WESLEY D. DOANE**, formerly superintendent of schools, Parma, Idaho, for the past five years, was recently appointed superintendent of schools, Jerome, Idaho.

**PROF. E. A. SIGLER**, superintendent of schools, Plano, Texas, was recently re-elected to that position for another one-year term.

**JAMES L. WEST**, superintendent of schools, Ridgely, Tenn., was recently re-elected to that position.

**ALBERT M. BEAN**, superintendent of schools, Gloucester, N. J., was recently re-elected to that position for another one-year term.

**DR. GEORGE B. SAUNDERS**, associate professor of English, University of Arizona, was recently elected head of the English department, Michigan State Normal College, Ypsilanti, succeeding the late **PROF. E. A. BARBOUR**.

**M. E. THOMPSON** was recently elected superintendent of schools, Hawkinsville, Ga., succeeding **T. A. CLOWER**, resigned.

**M. B. HOLLEMAN**, superintendent of schools, Brenham, Texas, was recently re-elected for another one-year term.

**GORDON E. GROFF** was recently appointed superintendent of schools, Marcus Hook, Pa., succeeding **HARVEY C. SABOLD**, resigned.

**JOHN W. STEVENS**, director of music in public schools, Lansing, Mich., was recently appointed head of the Public School Music Department of the new Michigan State Institute of Music, Lansing.

**PROF. GRAHAM WALLAS**, emeritus professor of political science, University of London, has accepted the presidency of Morley College.

**MARTHA MAY JAMES**, principal of the Abingdon High School, Abingdon, Ill., recently resigned.

**R. M. CALDWELL**, president of the Oklahoma Preparatory School, Tonkawa, Okla., recently resigned from that position.

**JOHN B. CUTLER** was recently elected principal of the Sharpsville High School, Sharpsville, Pa., succeeding **HARRY E. PEBLY**, who was recently elected supervising principal at that place.

**PROF. JOHN TORRENS**, principal of the Pearl City school, Pearl City, Ill., recently resigned from that position to accept the principalship of the Ashton school, Ashton, Ill.

**DR. FREDERICK BERTRAND ROBINSON** was installed as president of the College of the City of New York on May 7.

**MORTON SNYDER**, secretary of the Progressive Education Association for the past two years, will resign July 1 to become headmaster of the Rye Country Day School, Rye, N. Y.

# Holtzer-Cabot Signaling Systems Apparatus

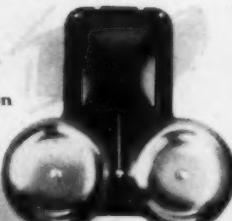


Electro Mechanical Bell



Fire Alarm Control Panel in Case

"E T S" Fire Alarm Station

Type "S A"  
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"A C" Double Gong Bell

Manufacturers of Signaling Systems for over 50 years

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## The Prestige of a Name

The prestige of a good name, in any field of endeavor, is a priceless boon. It is not easy to achieve, it is quick to depart if not justly deserved, and once lost is difficult to recover.

THROUGHOUT the quarter century from the invention of the Dunham Thermostatic Radiator Trap to the introduction of the Dunham Differential Vacuum Heating System the name Dunham has stood for a courageous, forward-looking progress that envisioned a greater task than mere manufacturing, and sought to serve by reason of its outstanding contributions to the science of heating.

For a quarter century those products and inventions bearing the name Dunham have won, and held, through their universally recognized service to the heating industry, the high esteem of architects, consulting engineers and heating contractors throughout the world.

To this world-wide prestige has come a new honor in the invention and development of the Dunham Differential Vacuum Heating System. This system of heating is even more revolutionary in its operation and in the advantages it assures than was the Dunham Thermostatic Radiator Trap which 25 years ago revolutionized an industry and made possible the use of low pressure steam which has been accepted as standard until now.

### The Dunham Differential Vacuum Heating System

won immediate and well nigh universal acceptance by architects, engineers and contractors, undoubtedly due in a large part to the good name borne by the products of this company. This acceptance has been more than justified in the phenomenal fuel economies secured by those whose faith in Dunham engineering led them to install the Dunham Differential Vacuum Heating System.

To those interested in actual operating costs during the past heating season in various types of buildings, we will gladly send such data upon request.

**C. A. DUNHAM CO.**  
DUNHAM BUILDING,  
450 East Ohio Street, Chicago

Over eighty branch and local sales offices in the United States, Canada and the United Kingdom bring Dunham Heating Service as close to you as your telephone.

Consult your telephone directory for the address of our office in your city.

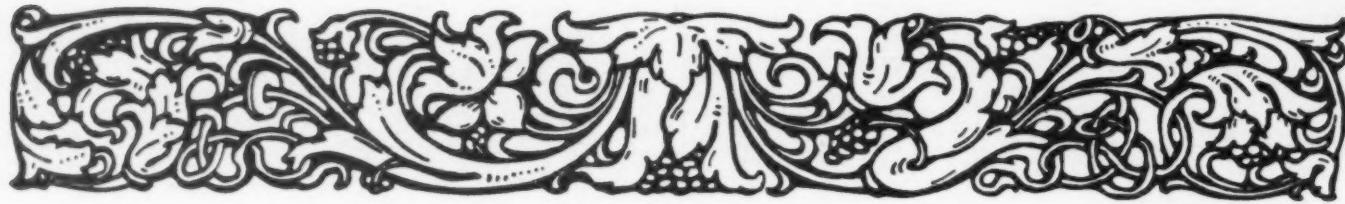
An engineer will counsel with you on any project.

U. S. Patent  
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Additional patents in the United States, Canada and Foreign Countries now pending.

# HEATING



## Publication Service From Cover to Cover

### *A Discussion of the Complete Purpose of The NATION'S SCHOOLS*

**A**DVERTISING is a logical spokesman of industry. In publications such as *The NATION'S SCHOOLS*, messages of importance are constantly broadcast that have pertinent bearing on school matters. For instance, here are a few excerpts quoted from advertisements in the current issue. They represent in publication service, a value equal for the most part to the editorial text. Here school administrators are put in regular and constant touch with the progress and development of the materials and facilities which comprise the school field.

"Entrusted with the care and training of the nation's children for half their waking day, through the formative years between ages six and seventeen, American schools carry a heavy responsibility. A responsibility fully recognized by modern educators, not only for mind and character training, but for training in health habits. With well-equipped gymnasiums, with theoretical education in hygiene, and with practical demonstration of sanitation in the school equipment, the responsibility is being met."

\* \* \*

"More and more, school officials are recognizing the fact that proper classroom health is equally as important as any course in the curriculum."

\* \* \*

"All health—even life itself—is pivoted upon sound sleep. Seventy days and more one may go without food and still live; ten days or so without water; but a week without any sleep would wreck a giant and a few days more would put him in a mad house—or a cemetery."

\* \* \*

"Vacation time is renovation time in schools. Then is the time to give your floors a thorough cleaning — scrubbing accumulated

grime and grease from oiled floors, sanding and refinishing waxed or varnished floors, applying fresh wax on linoleum, and scouring tile and terrazzo."

\* \* \*

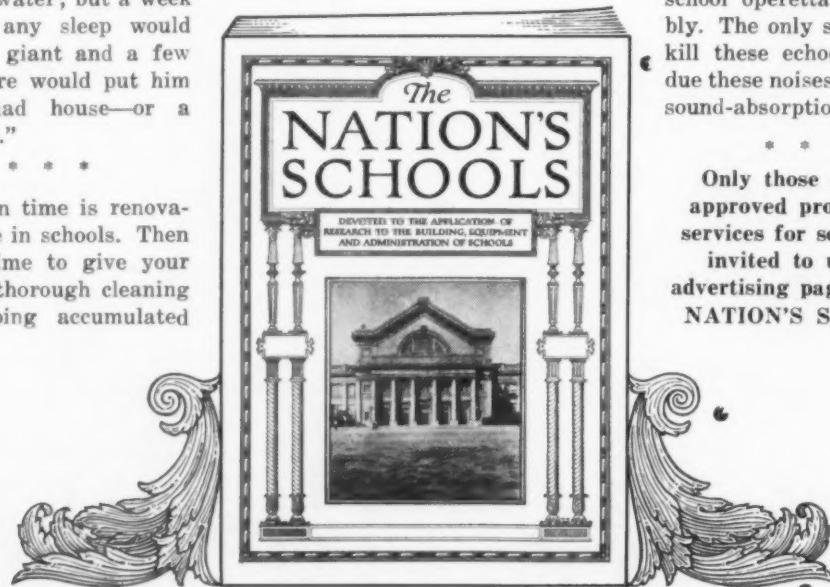
"You wouldn't expect your children to thrive on a diet of skimmed milk, so why furnish them "skimmed sunlight" in the schoolroom? The ultra-violet rays of the sunlight are a vital factor in the growth and development of children's bodies and minds. Let this outdoor sunlight into the schoolrooms and health and spirits—mind and body—will benefit."

\* \* \*

"Do echoes and reverberations mar the programs in your school auditoriums? Do noises arising in the corridors and gymnasium disturb your students while they are studying? Every school authority knows how quickly these noises ruin a student's capacity for concentration . . . how quickly they spoil a school operetta or assembly. The only sure way to kill these echoes, to subdue these noises is through sound-absorption."

\* \* \*

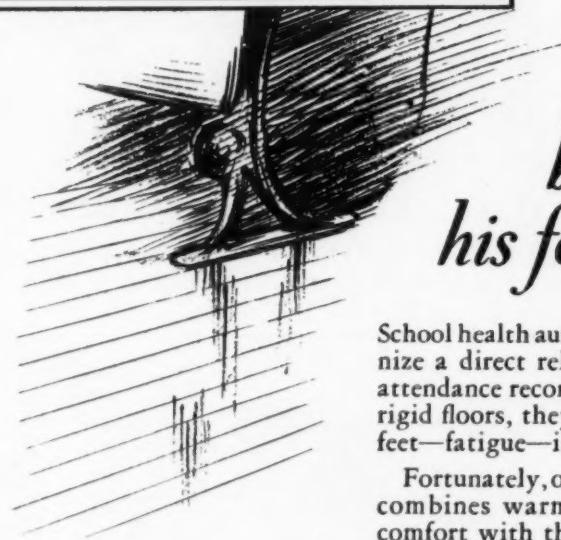
Only those offering  
approved products or  
services for schools are  
invited to use the  
advertising pages of *The  
NATION'S SCHOOLS*



*He never  
misses a  
day of  
school*



*because the floor beneath  
his feet is warm, dry, resilient, clean*



#### Maple Floors in Color

With fadeless penetrating stains recently developed, hard Maple Floors are now made to take a variety of beautiful, lasting color finishes—opening up entirely new possibilities for attractive decorative effects. Standard finishes made only by The Marietta Paint & Color Co., Marietta, Ohio, as follows

*Early American, Spanish Brown, Astoria Brown, Silver Gray, Dove Gray, Royal Blue, Pastel Green, Orchid, Seal Black, Natural*

*Write for free booklet, "The New Color Enchantment in Hard Maple Floors."*



School health authorities now recognize a direct relationship between attendance records and floors. Cold, rigid floors, they say, mean chilled feet—fatigue—increased absences.

Fortunately, one flooring material combines warm, dry, cushioning comfort with the qualities of lasting wear which school use demands—Northern Hard Maple.

This resilient flooring material is remarkably tough-fibred and tight-grained. It will not sliver or splinter. Scuffing, youthful feet and the moving of equipment simply make it smoother with time.

Northern Hard Maple actually out-wears stone!

Maple, moreover, because of its permanent smoothness, is exceptionally easy to keep clean. It offers no open lodging places for dust and germ-laden dirt to collect. And it permits quick, simple, permanent anchorage for seats.

Hundreds of schoolboards have been guided by these facts in selecting flooring. They have chosen Maple for schoolrooms, corridors, gymnasiums, assembly halls. Consult your architect about Northern Hard Maple.

*Let our Service and Research Department assist you  
with your flooring problems. Write us.*

MAPLE FLOORING MANUFACTURERS ASSN.

1797 McCormick Building

Chicago

#### Guaranteed Floorings

The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use.

**MFMA**

# Floor with Maple

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AZNOE'S can supply you with School Nurses, Doctors, Dietitians and Dentists! Here are a few typical candidates.

(A) Registered nurse, 3 years' experience School nursing, now taking additional training, available for next School Year at \$150. Prefers West.

(B) Dietitian, American, Protestant, special training and 10 years' Cafeteria experience, desires position in School Cafeteria. \$125.

(C) M.D., McGill University, American, Protestant, age 35, 4 years' experience School Physician, desires School appointment New England States.

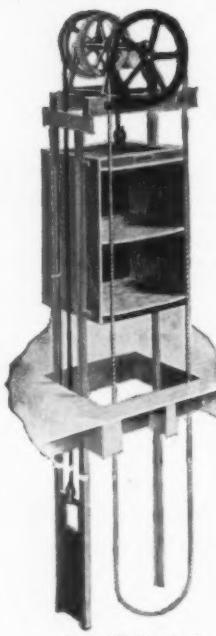
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### DUMB WAITERS AND ELEVATORS



Type "F D G"

The new Sedgwick Type "FDG" Geared Automatic Brake Dumb Waiters are designed for school, college, and similar service where average loads range from twenty-five to seventy-five pounds and occasional loads up to two hundred pounds.

Other Sedgwick Outfits are suitable for other requirements.

*Write for New Catalog  
and Consult our Service  
Department.*

### Sedgwick Machine Works

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*Manufacturers of Ash Hoists, Sidewalk Elevators, Trunk Lifts, Etc.*

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has become an integral part of present day essential school equipment. It is important to the school official to know that he can put his library requirements into our hands with the feeling that the orders will be cared for completely and correctly to the last detail. We specialize in the library branch of the book business, handling library orders from many hundreds of School Boards and Colleges from all parts of the country. Satisfactory service and liberal discounts. Send us your next order, large or small, and avail yourself of the advantages which we offer to your Board.

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It will be a pleasure for us to have you as a guest and a pleasure to you while staying here.

*655 Rooms and Every  
Bedroom with Private  
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Rates, \$2.50 Per Day  
and Upward

**Columbus, Ohio**

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Opposite the Capitol



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Provides Exercise and Amusement  
for ONE or FIFTY Children at a time

MITCHELL MFG. CO.

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## SANISTEEL

Movable Chair  
Desks

FOR LESS MONEY  
THAN THE  
OLD STYLE

Large .....	\$4.95
Medium .....	4.80
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We produced the first steel desk and other school furniture made of sanitary steel. Our products are still in the lead for sanitation and correct posture.



For  
First Aid  
and  
Hospital  
Room.  
Send for  
Cata-  
logue.

COLUMBIA SCHOOL SUPPLY CO.  
INDIANAPOLIS, INDIANA



## An Applicator Bottle

furnished with our compliments in your own medicine cabinet will soon convince you that

## MERCUROCHROME—220 SOLUBLE

(dibrom-oxymercuri-fluorescein)

IS THE

## Logical Successor to Tincture of Iodine

FOR

### First Aid Prophylactic and General Antiseptic Use

Mercurochrome stains as Iodin does, and it is the stain of Mercurochrome, as it is of Iodin, that shows just where and how effectively the germicide has been applied; it fixes the bactericidal agent in the field for a relatively permanent period which prolongs the asepsis or the sterilizing effect, and it provides for demonstrable penetration into the tissues beneath the superficial surfaces. Inasmuch as Mercurochrome is definitely proved an extremely efficient general antiseptic, it is only reasonable to consider it the successor to Iodin in this field, as it is free from the objectionable features of Iodin, for

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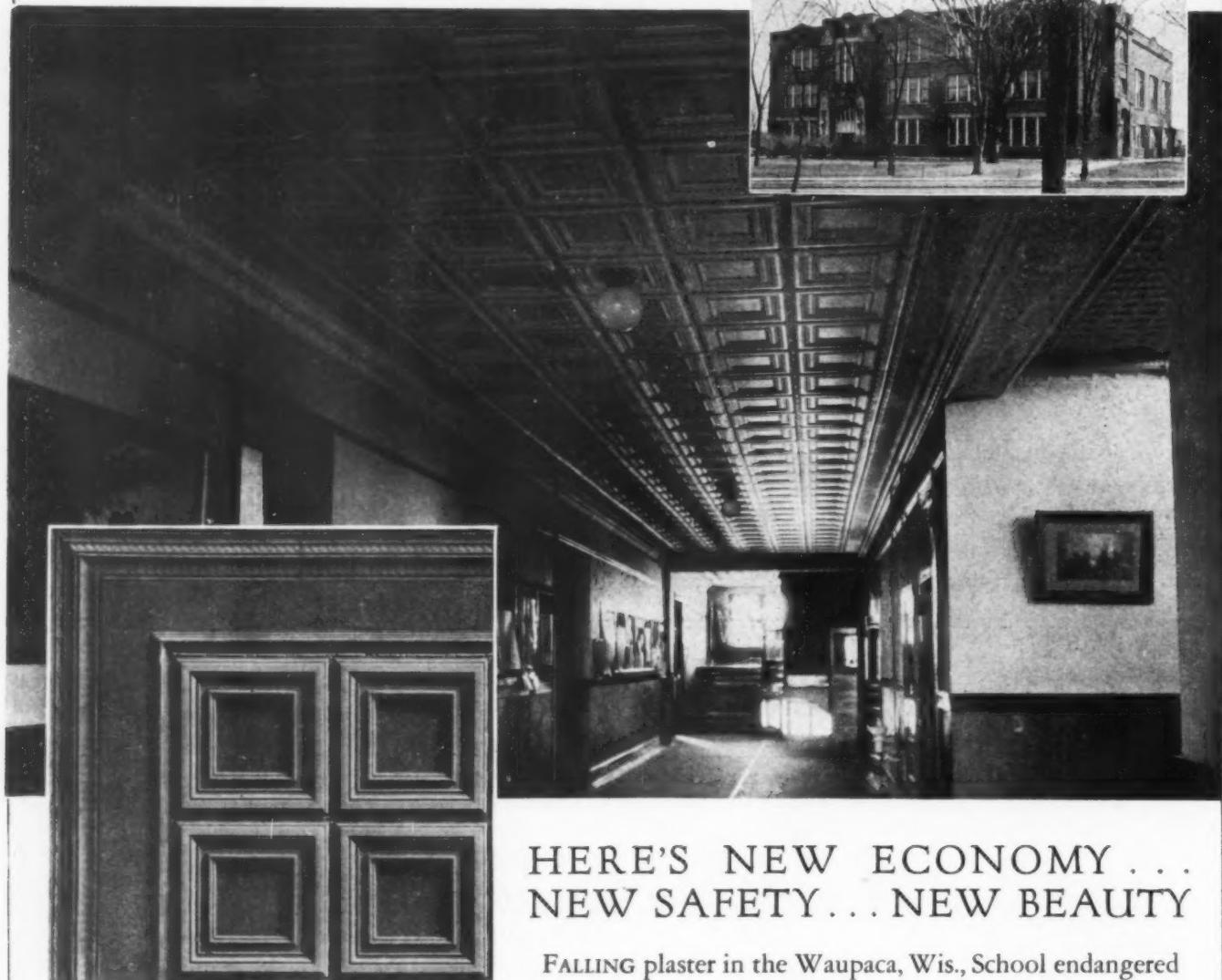
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# HOW THE WAUPACA SCHOOLS SOLVED THE PROBLEM OF FALL- ING PLASTER ECONOMICALLY



**HERE'S NEW ECONOMY . . .  
NEW SAFETY . . . NEW BEAUTY**

FALLING plaster in the Waupaca, Wis., School endangered the children's safety, and destroyed the appearance of a considerable portion of the interior.

The installation of Milcor Metal Ceilings replaced the falling plaster economically. It also gave the school a new beauty, and absolutely assured the school board, as well as parents, that the children would be entirely safe thereafter.

Milcor Metal Ceilings are pleasing in appearance, sanitary, permanent, firesafe, and economical to buy and install. Are your school ceilings in good condition?

*Send now for the Milcor Metal Wall and Ceiling Catalogue—  
You'll be surprised at the beau-  
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# MILCOR

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.—Chicago, Ill.; Kansas City, Mo.; La Crosse, Wis.



150 Pounds Pressure



CRANE VALVES

2500 Pounds Pressure



The new Kenmore High School, Kenmore, N. Y. Architects, F. J. and W. A. Kidd, Buffalo, N. Y. Plumbing Contractors, Ebling Hardware & Plumbing Co., Kenmore. Equipped throughout with Crane plumbing fixtures from the Buffalo branch.

## LET THE SCHOOL PLANT TEACH SANITATION

Entrusted with the care and training of the nation's children for half their waking day, through the formative years between ages six and seventeen, American schools carry a heavy responsibility. A responsibility fully recognized by modern educators, not only for mind and character training, but for training in health habits.

With well-equipped gymnasiums,

with theoretical education in hygiene, and with practical demonstration of sanitation in the school equipment, the responsibility is being met.

Experienced school builders, early in the discussion of plans, call in a responsible plumbing contractor. And in many of the newest and best-equipped schools, quality in plumbing fixtures, valves, and fittings is assured by Crane materials.

# CRANE

*Address all inquiries to Crane Co., Chicago*

**GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVENUE, CHICAGO**

*Branches and Sales Offices in One Hundred and Sixty-six Cities*

*National Exhibit Rooms: Chicago, New York, Atlantic City, San Francisco, and Montreal*

*Works: Chicago, Bridgeport, Birmingham, Chattanooga, Trenton; Montreal, and St. John, Quebec; Ipswich, England*

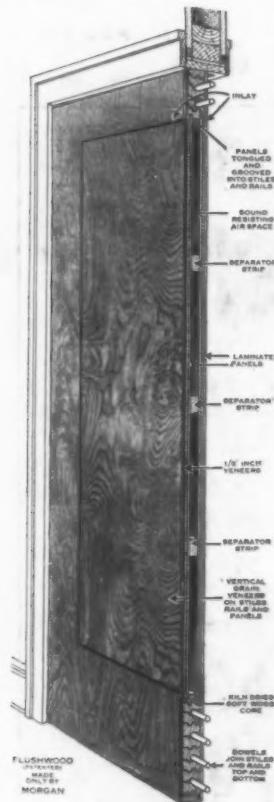
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# Features of Construction

*that have made*  
**FLUSHWOOD**  
(PATENTED)  
*the leader in flush type*  
**DOORS**

## VENEERS $\frac{1}{8}$ inch THICK

No "tissue paper" veneers are used in this door for every veneer is at least  $\frac{1}{8}$ " thick before sanding.

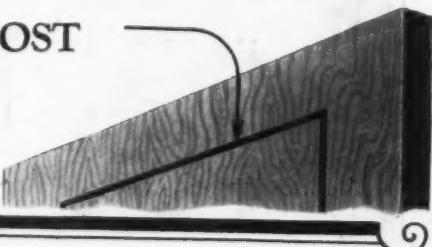
VENEERS  
 $\frac{1}{8}$  INCH THICK

## PROVEN SOUND RESISTING

Dr. Paul E. Sabine, one of the nation's foremost authorities on sound transmission and acoustics, after conducting exhaustive tests on Flushwood at the famous Riverbank Laboratories, Geneva, says, in part: "The reduction of ordinary sounds by the new Flushwood Door is appreciably greater than by either the regular flush door or the one-panel door."

## INLAY FURNISHED AT NO EXTRA COST

A beautiful inlay that harmonizes with the woods used in the door is furnished at no extra cost.



THE above are but a few of the many features of construction which have made Flushwood the leader in flush type doors.

The ever-increasing popularity of this door has proven that builders everywhere understand and appreciate the soundness of its design and the advantages which it offers. In the construction of school buildings Flushwood's unusual resistance

to sound is a valued feature. No door is 100% sound proof but actual tests have proven that Flushwood offers the most that can possibly be obtained in the way of sound resistance in a low cost door. It might seem that the old style flush door with its solid construction all the way through would be the most sound resistant yet, it's a fact, that Flushwood, with its dead air space, resists sound much more effectively.

The complete story of Flushwood cannot well be told on a single page. We have prepared a fine catalog containing colored reproductions of the door as well as a detailed description of the construction and all other important facts. A copy will cheerfully be sent on your request to our nearest office—and there won't be the least obligation on your part.

## MORGAN WOODWORK ORGANIZATION

MORGAN SASH and DOOR CO.  
Chicago Detroit Cleveland

MORGAN COMPANY  
Oshkosh, Wis.; New York City

MORGAN MILLWORK CO.  
Baltimore; Jersey City; Greensboro, N. C.  
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